Important Notes

This fingerprint machine is designed to work with the newly issued V3.X version Time & Attendance software only, which is completely compatible with the original V2.X version that has been popularly applied to all machines, the new one own stronger function, more convenient, and more human nature for user than the V2.X version

Customer Advice

Thank you for purchasing our product. Before using this machine, please read this manual carefully.

Notice

Please do not place the product in the place with strong light, because the strong light may significantly affect the fingerprint scanning, and thus cause the fingerprint verification fail. This product is designed for indoor installation, if it has to be installed it outdoor, please place the equipment in proper environment. You must beware of not exposing it to wet or harsh state, the product work temperature rang is 0-40℃. Do not use your machine exceeding this range, keep your equipment away from the heat source and radiator. For long time use it outdoor and the internal heat of the machine, will cause problem to the operation.

Please keep it away from violent collision, which would cause the internal components loosened or damaged. And the equipment is not a waterproof; Do not place this equipment in wet or damp.
Please use the equipment as the notice, you will get good effect and test speed.

Notice: Fingerprint Enrollment and Identification shall be taken after the installation the fingerprint identification machine

Installation   Enrollment   Identification

Enrollment   Installation   Identification
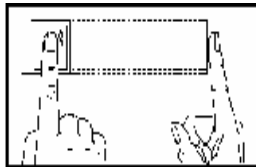
How to place the finger

Make sure the fingerprint image captured is of a core of presented finger, a fingerprint is point to locate within innermost recurring ridge of any give finger.

To obtain a higher success rate, enroll same finger 3 times in a slightly-adjusted angle, one to the center, one incline slightly to the left. The third incline slightly to the right. Please follow the place procedure; the success rate will increase dramatically.
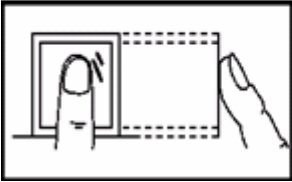
The correct way is:

Place a finger flatware on the sensor surface

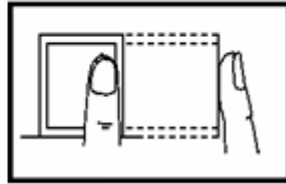Place it to the center of the sensor surface
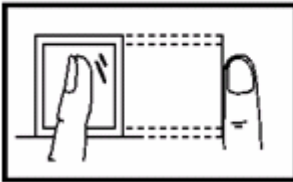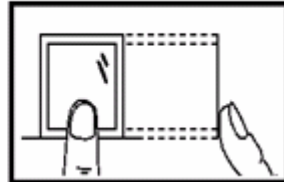

The wrong way is

Vertical

Offset

Inclined

Lower

Notice: Please adopt the correct way to place the finger. Our Company is not responsible for any damages and troubles whatsoever arising out of from improper pressing manner.

About this Manual

All functions in this document are subjected to the actual product , as a result of the product is unceasing renewal,   all attempts have been made to make the information in this document complete and accurate. Our company **is not responsible for** the actual product is consistent with this material,   is not responsible for any direct or indirect damage or loss of business resulting from inaccuracies or omissions, the specifications in this document are subjected to change without notice

About 8″ TFT iClock

16、Battery Box

17、SD card Slot
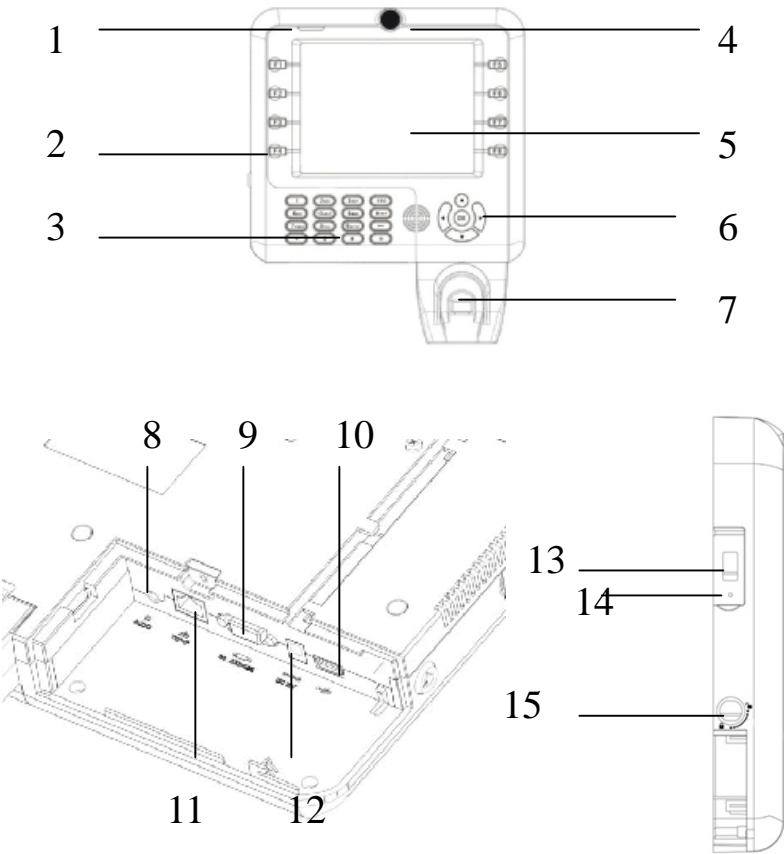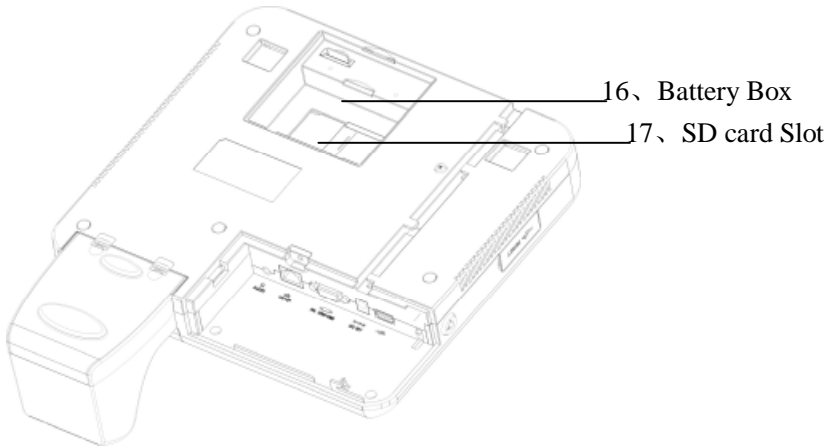
1 LED indicators: at normal working the green light blinking per one second, if the verification is positive, the LED will glow green for long -three seconds, If the authentication fails ,the LED glow red for long-three seconds.

2 Function keys: state key and functional shortcuts.

3 Small keyboards: to key in Chinese characters, letters, numbers, etc., and the menu operation.

4Camera: take a photo when user go on authorization

5.Touch Screen: display the operation result

6 Joystick key: locate various options by right, left, above, under position.

7 Fingerprint Sensor: match with the fingerprint.

8 Audio jacks: External speaker box.

9 RS232/485 port: RS232/485 communications between the equipment and the computer

10 USB port: for external USB devices (such as u disk, fingerprint sensor).

11 RJ45 port: for and computer network connections.

1**2 Power outlet:** Access for power.

13 USB port: for external USB devices (such as flash disk, fingerprints sensor).

14 Reset key : when the machine is in halt, push this key with small tools

15 Key hole: Lock the when cover of the Cable Box

16 Battery box: It is used to install backup battery along with machine.
17 SD card slot: Plug SD card into here.

About battery

To help avoid possible damage to the equipment by accidentally shut down and better ensure the track staff attendance, the device provides a backup battery, in the accident the battery power will provide the equipment.

Battery installation

Before installing the equipment, make sure that the battery are correctly load in.

1, screw off two screws and open the battery box.

2, open the back plate of the battery box, load into the battery, and ensure the battery with copper side forward down.

3, after fully loaded, mount the back plate, use the two screws fasten it.

Battery dismantle

When the equipment is in the process of long-term transport or without use, it better to take out the battery and place it in dry, cool place, otherwise, the battery may be rusty or enable machine poor performance.

1. After taking way the two screws of the battery box.

2. Open the back plate of the battery box, took out the battery.

3. Mount on the back, fastening on the two screws.

Installation Steps

1) Mount the metal plate on walls in the appropriate place and fix it.

2 Find the key along with the product. Open cover of the cable box

3) Connect the cable with machine, make sure that the wired machine align with the plate , then hang it on the plate and fix machine with screws below.

4) Arrange the machine's vertical edge so that they are in line with edge of the cover of the cable box, alignment, hold the machine bottom, and after in accordance with gently push the cover toward the vertical direction, shown as ②arrowhead.

5) Push the cover until it is parallel with the bottom of machine, and then push lightly the cover toward the right level until the cover completely meet with the machines.

6) Use the Key locks the cover
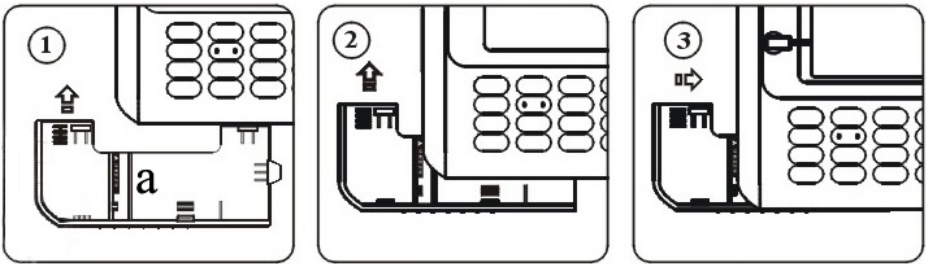
Recommendation step

Step1: Place the fingerprint machine properly and power up machine.

Step2: Enroll user, register fingerprint and password, and assign privilege to user.

Step3: verify user by the registered fingerprint and password.

Step4: Configure the communication parameter; download the staff information to software using the U flash disk or one of three communications which is used to connect with the computer.

Step5: Revise the staff's information in the staff maintenances item of software, connect the equipment with PC again and upload the staff information to the equipment. At this time when the fingerprint machine track staff's Time & Attendance log , his/her name will be display on the screen.

Step6: Check the fingerprint machine time, and make sure   whether it is correct, after completing setting up, then start to track employee's attendance.

Step7: At the end of the month the downloaded attendance log to software will be calculated.

About Play Flash

To play flash is available for this device, after loading the flash file into machines, the device is able to play flash in the ready state, so it can produce some publicity flash and upload it into the machine to play.

Ready work:

The ready work equipment as shown below:

Standby state is shown in photographs， users can upload images (see 7.4 upload custom photo), but also can shift the clock displayed on the screen intermediate (See 5.1 interface installed).

When the equipment in ready working mode, users press OK button or touch keys on the screen after the player launched flash player, the middle of the screen broadcast flash animation.

After playing the flash, the player interface will automatically shut down, in the process if press any button to stop players and return to the standby mode.

Touch Screen

The devices support touch screen. That is, if we perform an operation without keyboard by pressing option , it is only need to use the touch pen or fingers, such as touch the icon or menu , according to the location or menu the system will locate and input information, this can be user-friendly operation.

For example: now users attempt to enter the menu for operation.

Instructions

There are two methods can be used,

The First: Pressing M/← into the menu.
The second: finger touch the icon regional of Menu on the screen

About Time &Attendance

When the equipment in ready work mode, users verification is positive by the fingerprint or password, whose attendance record will be tracked by the machines and the records will be saved.

How to choose the Attendance state

The equipment is in ready mode, press the function key of the equipment around both sides of the screen to shift attendance state and the state button corresponding state information is displayed on the screen, the current selected state glow in orange highlights.

After 8 seconds showing, press the "ESC" key the messages will disappear.

Touch the display area on screen lower right of the key corresponding state information can be displayed once again. (See definition of state 5.5 keyboard definitions)

Track Staff Attendance

When staff punch –in or out, who will be more concerned about the current perform time, and so after staff in attendance the equipment will show the current time on the screen by clocks .

ᴗ **Time &Attendance by Fingerprint**

The attendance record will be unable to be saved to the machine unless user verifies successfully with her/his the fingerprint or the password.

（**1**）1: N fingerprint validation

Match the fingerprint which is created by user press finger on the sensor face and all fingerprints data in fingerprint machine
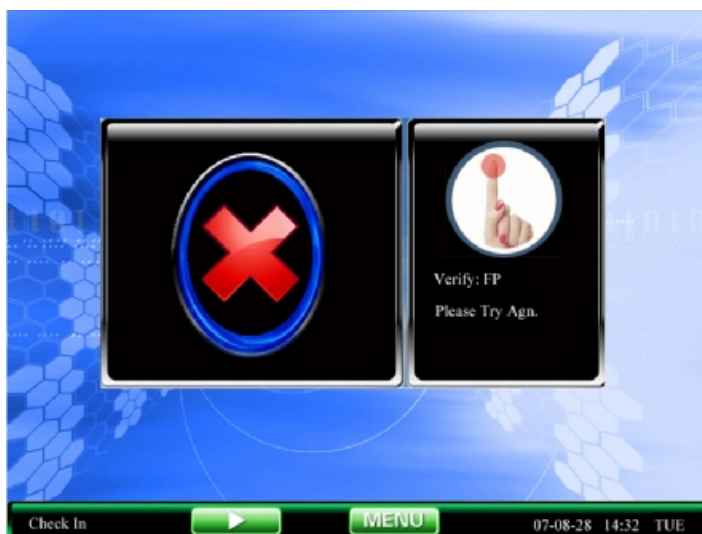
Step1: Press the fingerprint sensor with finger in proper method.

Step2: The equipment prompts "Thanks", the validation is successful. If the user's photo has been registered, the photo will appear

The equipment prompt "please place finger again ", go back to repeat operation.

（**2**）1: 1 fingerprint validation (ID.NO +fingerprint)

Match the fingerprint which place the fingerprint sensor face and entry the related number with keyboard, when user's fingerprint quality is too poor to be recognized, this way **1: 1** will be available．

Step 1: Verify personnel's ID.NO that keyboard entry in the initial interface.

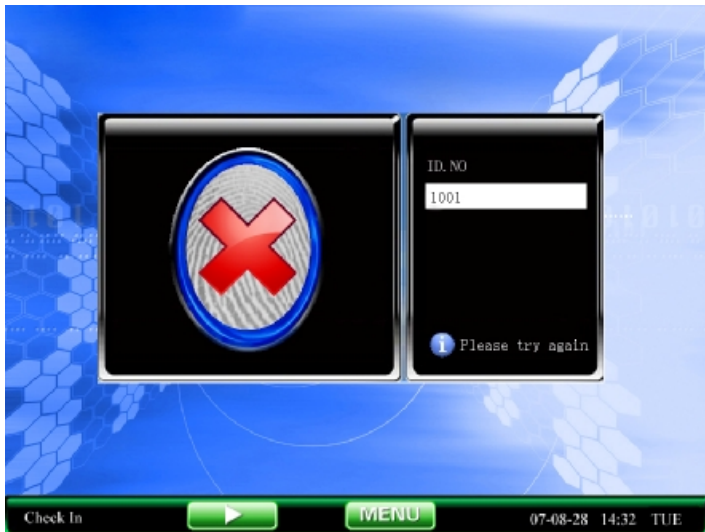Step 2: Place finger on the sensor window in proper way

Step3：The equipment prompt "error enrolled ID", Means the number does not exist
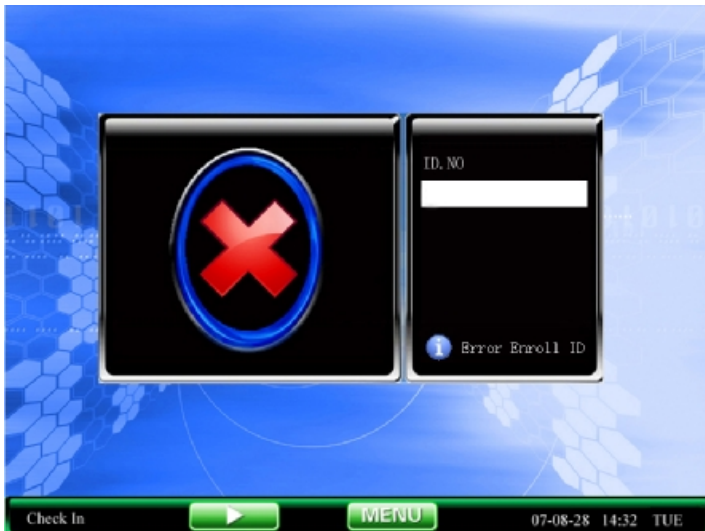
Step 4: The equipment prompt "Thanks", the validation is successful.

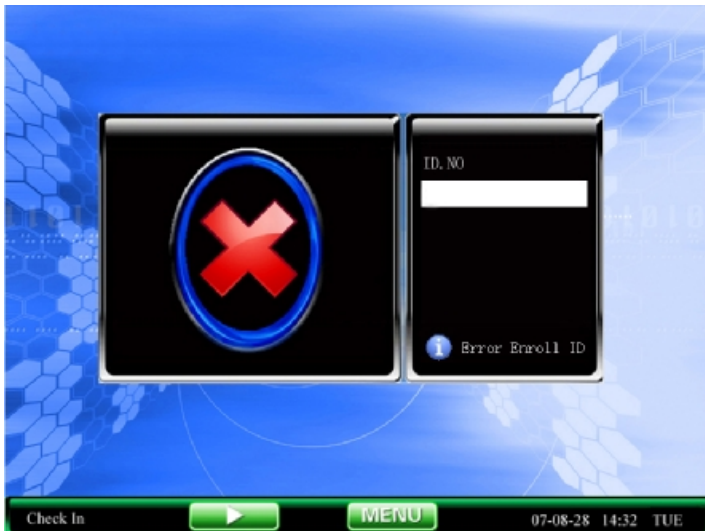When the prompt ''please try again'' appear.

In the equipment there are default two times to allow the staff to try, Times range is set in 5.1 interface. After failing to verify two times, the user must return the step to operate again.

∪ **Track Time & Attendance by password**

Step 1: Type personel's ID.NO to be verified in the initial interface, press "OK" key

Step 2: If prompt the registered number is wrong, that means there is no the personnel's number; or the staff has not registered the password.

Step 3: the password interface appears, please input the password

Step 4: The equipment prompt "Thanks", the validation is successful.

The equipment prompts "the password is wrong", the interface will return to the password operation interface.

In the equipment there are default two times allowing the staffs to try, the number of times to be allowed to set in5.1 interface. After failing to verify two times, the user must return the step to operate again

⊔ **Track Time & Attendance by Card**

Step 1: slight wave the cards near the induction area, after the equipment found the card, then remove the card from the equipment.

Step 2: When the equipment prompt ''Thank you'' appear, then the verification is completed'', if users' photo has been registered.
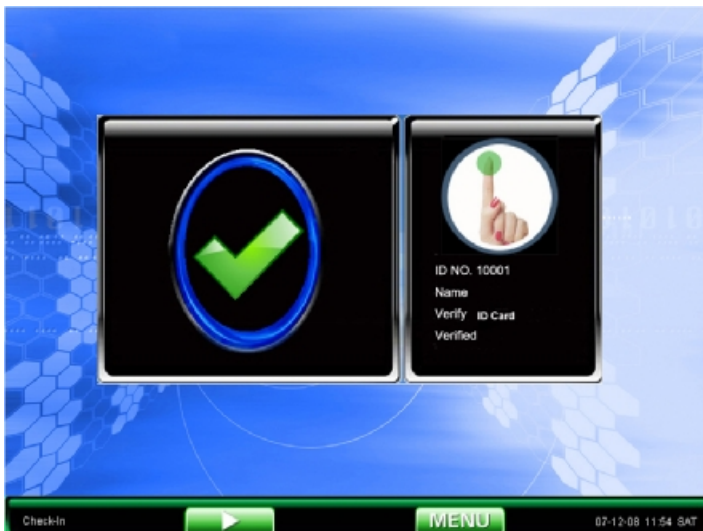
Step 3: If the cards have not been registered yet, mention that card is unregistered

Note: the card induction area is 3cm -7cm above the small keyboard.

About Access Control

After complete to assign the Access Control privilege, when the staff verify he/she identity on the equipment, the equipment will determine staff whether own privilege to open the door. If employees fail to unlock cause from he/she do not meet the defined conditions, the equipment will be given corresponding prompt, the following take fingerprints to verify as an example:

1. Equipment prompt that verification is successful, and sent a unlock signal.

2. The equipment prompt the Time Period is invalid.

This current time is without the Time Period employees is allowed to open the door. Therefore, the staff could not open the door.

3. Prompt the invalid Group combine appear by the equipment

This group the staff locates without unlocking combine. Therefore, the staff could not open the door.

4. Motion to go on multi-user certification.

Until the group where user locates and the other group pass certification together, it is not allowed to open the door.

5.The equipment motion to combination verification.

This is verification through the user or the group, the users locate combine verified, it is need to verify identity by multiple verification

Connect with PC

This equipment will only track the attendance time record, but to get statistics result is unavailable till the software process the attendance record in the PC, therefore connecting machine with PC is necessary download attendance logs into Time & Attendance tracking software. There are some ports that support kinds of communications between machine and Time& Attendance tracking software:

⊔ **Ethernet**

(1) Via the Hub: With Straight Thru Cable (apply to connect

network card and Hub) turns on, connect fingerprint machine to network.

（2）directly Connection: With T crossover cable（directly connect two Ethernet terminal）connect fingerprint machine to PC

Machine Option: Enters the menu - communication Option, please set the following several items:

IP address: default IP is 192.168.1.201, which has to be resetted.

Subnet mask: default Subnet mask is 255.255.255.0, you may change it depending on actual application.

Gateway: the default gateway is 0.0.0.0, you may change it depending on actual application

Network speed: In network running speed, there are Automatic Adaptation, 10M and 100M, three options;

Connection password: in the Connection Setting. May change communication parameter, after setting, input the corresponding value on connection interface in the PC software.

ʊ   **RS232 way**

Machine setting: Enter the menu - communication option, please set the following several items:

Baud rate: With the computer communication speed, the high speed communication is quick, it is better to use the RS232 communication; (115,200, 57,600).

RS232: Whether uses the RS232 communication, set this item as

"Yes"

Communication password: in the "connection setting". May change communication parameter, after setting, must input the corresponding value on connection interface in the PC

ப   **RS485 way**

Machine Setting: Enter the Menu − Communication option, please set the following items:

Serial number: Assign a network ID. The serial number scope is 1 − 254.

Baud rate: the computer communication speed, the low speed communication is stable; we recommend that the RS485 communication Baud rate as 9,600 and 38,400.

If use RS485 to communicate, please set this item as "Yes". **RS485**：Communication password: in Connection Setting. After the password was set the corresponding value must be input on connection interface in PC.

Content

1 Main Windows

While device in readiness mode, Press ▥/⏎ key to open main window, shown as following figure.

Instruction

On the Main menu interface you will find eight icons menu, namely: User Management, System Settings, Communications Settings, Customize Settings, Record Inquiries, U flash disk Management, Broadcast Information, Systems Information. In some menus, there are some submenus.

1) No Submenu Status

A: Press Function Key to enter the corresponding interface (F1 ~

F8).

B: Press ◀/▶ to move on, and press OK key to enter interface for operation.

2) Submenu Status

scroll ▲ / ▼ key or press F1 ~ F8 submenu , the selected option will become in black grey colour, press OK key to enter interface for operation.

Press "ESC" key to exit from the menu.

2 User Management

For a fingerprint machine, user's basic information includes fingerprint, password and management privilege. When the company track staff Time & Attendance log, as a result of reassigning staff, the user information in the fingerprint machine also needs to correspondingly make the modification, therefore the fingerprint machine provide function to add, delete, search, change user and so on the operation.

2.1 Add new user

Firstly register the personnel's fingerprint or the password on the machine, whose time & attendance record will be tracked.

Enter the interface to add new user:

ID.NO: Staff' attendance number.

Name: use T 9 input method to key in user's name.

Fingerprint: Registered staff's fingerprint, to register ten fingerprints is available

the fingerprint may be used to check attendance by the staff whose fingerprint has been registered.

Registration password: The registration user's password, the effective figure of password is $1 \sim 8$.

The registered password staff is possible to use the password to check attendance.

Enroll card: registered users passwords.

Enroll Photos: register user's Photos.

Registered user's photographs will be displayed in attendance performance.

Privilege: Users are people whose identity must be authenticated before enter a menu. The ordinary consumer can track attendance by the fingerprint or the password only; the manager already may equally carry on the daily checking attendance with the ordinary consumer, but may enter the menu to operate each option.

Note: When there is no appointed the manager, any person all may enter the menu operation; after appointed the manager, be unable to enter the menu until the manager status is confirm, after the success can enter the menu.

Example: the flow to add user as follows:

Input ID.NO

　　1) The equipment is assigned ID.NO by default.

　　2) Press the "◆━" key to delete the default assigned ID.NO, when entry ID.NO with the keyboard, if occur error. May press "◆━" to delete it and input ID.NO again. Directly press "OK" key or scroll the▲/▼ key, and locate cursor on the "Enroll fingerprint" button to press the OK key again, go on the fingerprint registration.

Enter the name

　Press the * key to open T9 input method, entry the staff 's name, with T9 input method input by the ESC from the completion of T9 input method. Directly press the "OK" button or scroll▲ / ▼ cursor keys will be located in the "Registration fingerprint" button, then "OK" button, enter the fingerprint registration.

Enroll fingerprint

Note: 1) the fingers is shown as yellow frame that present the current selected finger.

2) The finger is shown as green that the finger has been registered, if the finger has been registered, the fingerprints will be re-registered and covered with the previous fingerprints.

3) Select the registered fingers, press keys to delete the fingerprint that is available.

4) Figure fingerprints registered in the default order of 2,3,4,5,0,9,8,7,6,1.

press key with the digital keyboard or scroll ▲/▼/◀▶ button, or touch the fingers which will be registered fingers. Follow the equipment prompt place the finger, you must continuously press the same finger 3 times in the correct method until the registration successful prompt appear

6

After registering fingerprint successfully, if need to continually register another fingerprints to press finger, directly after the completion of registration by (F7), "ESC" (F8) to return to the previous interface, The equipment will prompt the current number of registered fingerprint.

Scroll▲ / ▼key, the cursor will be located in the "Registration password" button, and Press "OK" to enter password registration.

Register Password

Following the equipment prompt, input the password , then press OK key and input password once again , only it is allowed to input 1 ~ 8 the effective figure for the password . After the input to save completed press ⬜/↵ （**F7**）, if does not save it, press "ESC"（**F8**）.

After saving it, the icon 🔑 will display on the screen, which mean the password has already set in the device.

Enroll cards ★

Scroll ▲ / ▼keys to locate the cursor on "enroll card" button, and press "OK" to enter the registration card.

Slight ware the card near the induction area, after the equipment found the card number, then remove the card from the equipment, after equipment prompt that the "Enroll successfully" the card number will be save up, or may press "Done" button to return to register interface.

After enrolling the card, the 🔴 icon will display equipment screen that means the cards is registered card, the employees can punch card to track whose attendance.

Take photo while track staff Time & Attendance mode ★

Scroll ▲ / ▼ key to locate cursor in this option, Scroll ◀/▶ key to

set photo mode.

There are total of four kinds of mode, here configure setting for the current staff, when staff punch-in/out his /her photo will be taken by Time clocker model

(1) The global settings: that the staff follows the taking photo mode in the interface settings to set the taking photo as punching in/out.

(2) Do not take photographs: that came does not take staff's photo after the punch complete.

(3) Take photographs: that after the staff signed attendance record, take photo but does not save it.

(4) Take photographs and save: after the staff punching–in/out the camera take photo and save it .

Registration photos ★

scroll ▲ / ▼keys, the cursor will be located in the "Registration Photos" button, and press "OK" to enter the video interface, to configure photo capture function is available .

After entering a snapshot mode of the equipment interface, scroll ▲ / ▼ key to switch options input box with the small keyboard, and input appropriate number keys to adjust the value of the camera filming effect, after appropriate adjustment press 𝖬/↵ (F7) or "OK" that is, photos can be captured, after the completion of the snapshot capture and save pictures, and the photograph swill showed for two seconds, re-entering the snapshot mode. If you don't satisfied with the pictures taken, press the "return" button. Continually capture photo again until you are satisfaction.

View

Scroll▲ / ▼keys the cursor will be located in the "Registration Photos" button, and press "OK" here to view these registered pictures.

Press any one button or touch the region of images on the screen, can exit from photo browser.

Privilege setting

Scroll the▲/▼ key, and locate cursor on the "AUTH" option box, Scroll ◀/▶ key to choose privilege.

Save/exit user registration

To confirm the registration information is correct, after getting confirmation, save it.
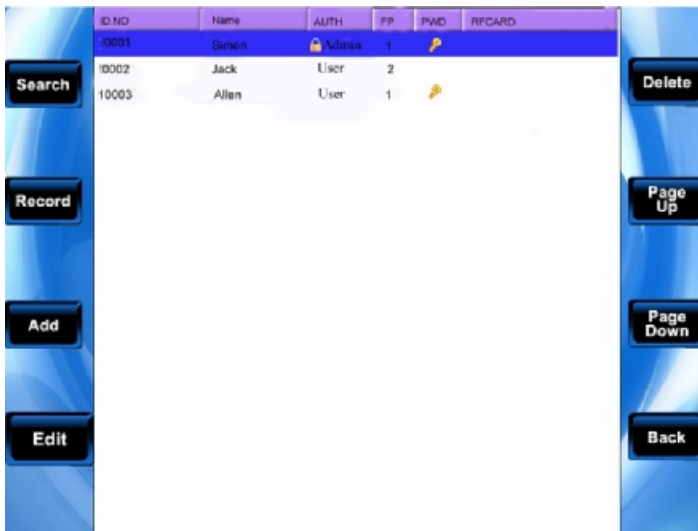
The way for saving:

1) Press "▥/←" （**F7**） the key **,**the prompt "Save successfully! Continues to input?" on the equipment, press "OK" the key to save it, if you Do not want saving, Press "ESC"

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2) press "ESC" to exit. If the prompt "the data has been changed, Are you sure to save it?" appear on equipment, want continuing to press "OK", if you abandon this operation, press "ESC" key to return the previous menu.

2.2 View User

By means of the user view you can view all users' information in the current equipment is available, which include username, the number of fingerprint, whether the password is registered, and user's attendance logs. You are allowed to edit or delete some user

Note: 1) Shown as above figure, the icon 🔒 express that this staff is a manager, the icon 🔑 express that the password has already been registered.

2) The RF card No. will be displayed on the Card No. Rank

Scroll ▲/▼ key , the blue cursor   locate at the   line that want to be operate, press the function key   where around the screen both side to do operation, Example , press F1 key to search user.

2.2.1 Search for users

When there are lot of registered user in the device, in order to provide the manager with convenient rapidly to find a staff, the equipment come with "ID.NO" "Name" to retrieve the staff.

Press the F1 key in the user browser interface, the operation menu appear:

Input staff's ID.NO that you search for, press the "OK" key to search, after searching successfully, the blue cursor will

automatically locate on this staff name, if this staff you search does not exist in the device, the prompt "the non- registration data" will appear.

2.2.2 Inquiry Attendance

When the manager examine staff's registration information and fingerprint so on, meanwhile may track the staff's attendance record in the same month.

Press the **F2** key in the user management interface, the operation menu appears, choose "Attendance inquiry" item, may track the staff's that you choose the attendance record in the same month:
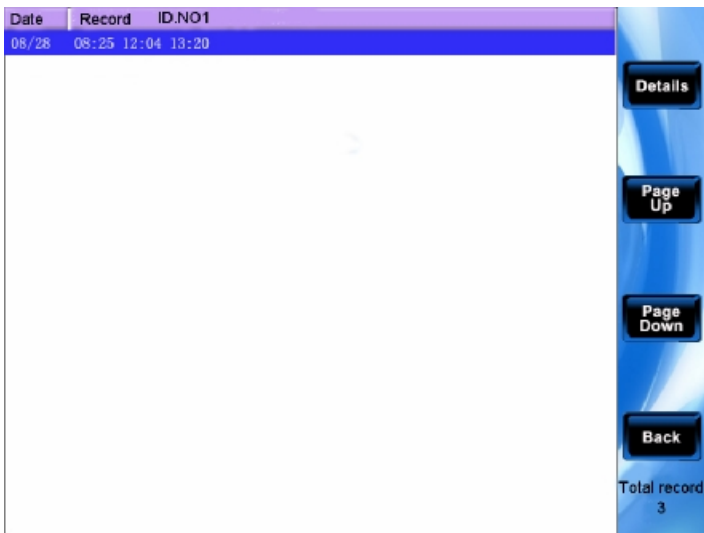
Scroll ▲/▼ key to browse the attendance log line by line.

Press F6/F7key to browse the attendance log page by page.

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Press"ESC"/F8 return the user browser interface

Press OK/⫼/⫰/**F5** key to inquire the detailed situation.

ID .NO	Name	Atilogs	Verified	State
1	Simon	08/28 08:25	FP	Check-In.
1	Simon	08/28 12:04	FP	Check-In
1	Simon	08/28 13:20	FP	CHeck-In
1	Simon	08/28 18:12	Pwd	Check-out

Page Up

Page Down

Back

04

After the examination completed, press "ESC" （F8）key to return to the user management interface.

2.2.3 Add New User
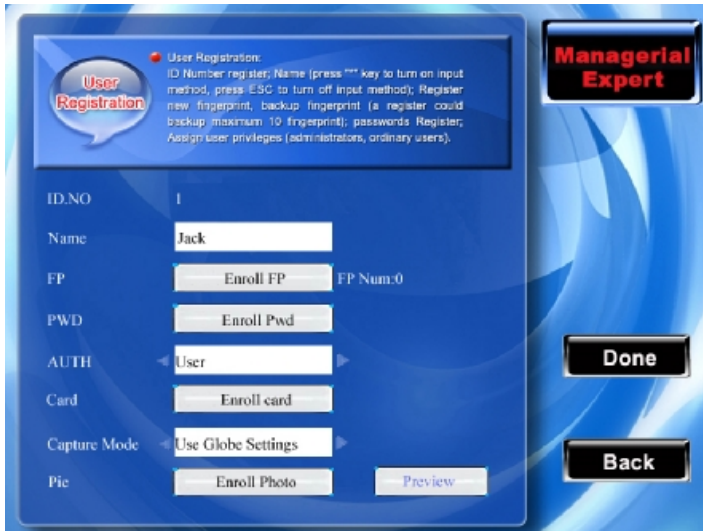
There is an option that is easily operator to add user in the here, the function is some with 2.1 introduce. Press F3 to enter

2.2.4 Edit User

Makes the revision for user's information which have been saved in the machine, for example, if the registered fingerprint is invalid , renew the fingerprint or register the password, just enter the "

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edition user" available.

Press the "M/↵" /OK /F4 key to display the user's information which has been registered:

The ID.NO is not allowed to revise again, other operations is similar with to add the user. Register the fingerprint again, if there is not the password or need to revise the password, then directly click on "Chg Pwd", the privilege also is allowed to revise.

Save edition/Exit edition

1) Press "M/↵" the key to save editing result and return to the user management interface.

2) Press the "ESC" key , the prompt "the data have been changed, are you sure to save it" display on the equipment press OK, press " ESC" key to abandon operation.

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2.2.5 Deletions users

The option "deletion user" is to delete staff's partial information or all information from the equipment, which apply to the following situation:

1) The staff's fingerprint or the password is invalid or Do not use it any more.

2) After the staff lay off, administrator deletes her/his record from the equipment.

In the user management interface, scroll ▲/▼ key or search user to locate the blue color cursor at the staff that needs to edit, press the F5 key. The operation menu appears, your choice is "deletion user".

Deletion user

If there is not user's fingerprint or the password in the device, then his /her corresponding typeface is a blue color, be unable to operate it, scroll the ▲/▼ key to locate the cursor at the option which need to operate. Press the "OK" key the dialog box which asks you give confirmation will pop-up whether delete this item, after confirmation, the equipment should create the corresponding prompt, press "ESC" (F8) key to return to the user management page.

2.2.6 User Access Control ★

There is a access control option in the user view interface of the fingerprint machine with access control, a single-clock the operation of menu, select "User Access Control.".

Instructions:

If the fingerprint machine provide with a Access Control function, the access control option will appear on the User brows interface
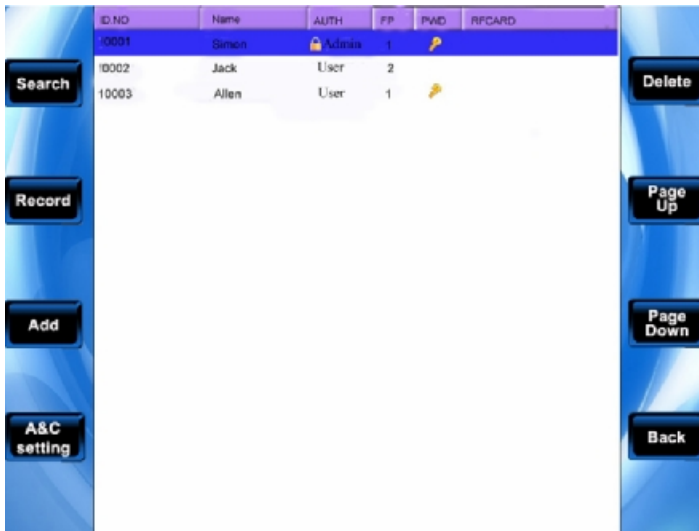
Press F4 to enter user access control setting

User Access Control Setting is to set privilege to open the door for each individual . These include: Group-owned setting, verification methods, used Time Period, the verification methods, fingerprints management. Group: registered users will be assigned to the group, it is easily manageable;

Using Time Period

1) the group Time Period: the user whether or not use their default the group Time Period.

2) Users Time Period: to set up the user unlock time. That is not to use group time, the group does not affect the other people unlock time.

Verification methods

1) Group verification types: the user whether use the group verifying types or not.

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2) Personal validation types: individual users choose the type of verification, or non-use type verification group, the group does not affect other types of verification.

Duress fingerprint management

a newly registered users or specialized appoint a fingerprint which has been registered in the fingerprint machine to the Duress fingerprints. In any case, the fingerprint match successfully, then produce the duress alarm.

Note: equipment provides a wideϑ range of types verify, specific See Appendix 8, Multi- verification.

Some equipment do not provide with this function

Instructions:

Scroll ▲ / ▼ key to move the cursor to the optional items. If the item is the input box, input the value with the small number of key

keyboard, If it is a rolling box, Scroll ◄/►/ key to switch the provided value, when the cursor locate at "manage Duress fingerprint" button, Press Ok key to enter the Duress fingerprints management. After completing setting, directly press F7 key to save it and return to the previous interface, press the "ESC"/F8 to Cancel and return to the previous setting interface .

Instructions
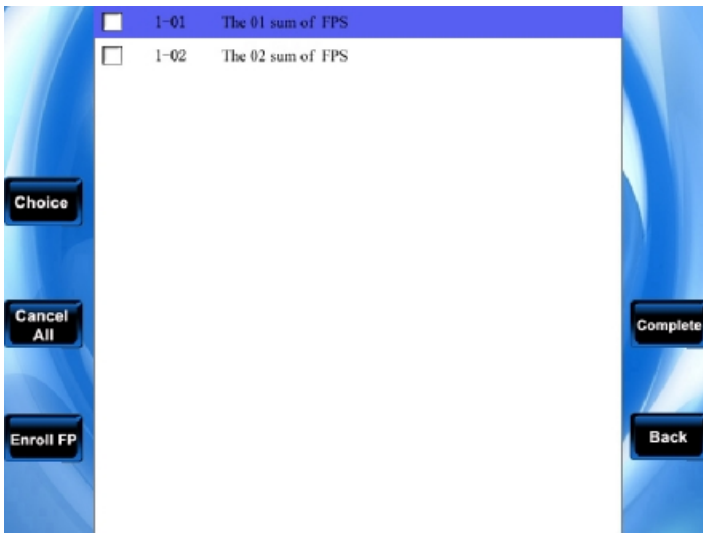
1) Definition / cancellation Duress fingerprints

on the above interface, Press the OK/F2 key to define / cancel the current Duress fingerprints you selected.

Press F3 to cancel all selected fingerprint, Do not serve as the duress fingerprints.

2) Duress fingerprint registration

In the above interface, press the F4 to enter enrolling interface,

after registering the successfully in the register interface you will find that the fingerprints are designated as Duress fingerprints.

3) Save the duress fingerprints

If confirmed definition of duress fingerprint in the above interface , press F 7 to save the setting , press F8 to give up.

2.3 card management ★

Support contact less smart Mifare cards with the working frequency 13.56 MHZ, which the fingerprint time and attendance can be integrated into other systems, multiple authentication methods is available to meet the needs of different groups of people.

Note: card management options only with some special models.

Instructions:
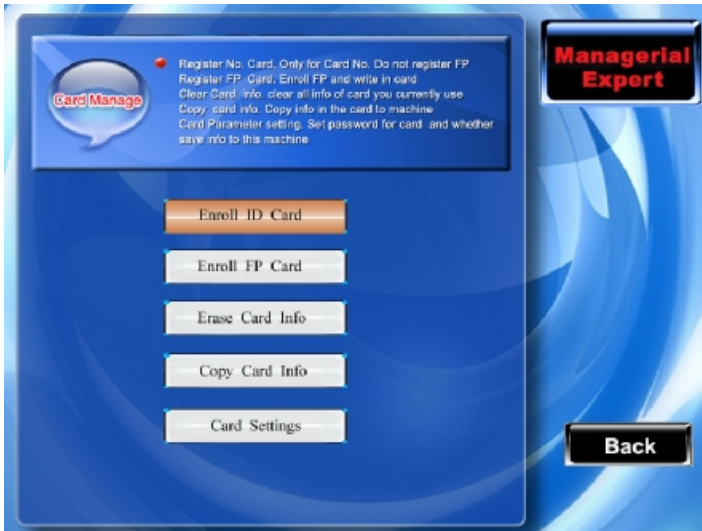
Scroll ▲ / ▼ key to select, press "OK" button perform the selected item.

2.3.1 Enroll ID Card

If Mifare card is intended to use as ID cards, just the registration card number enough, do not need to register their fingerprints.

Instructions:

1, registration

Step 1: Select button registration number card, press "OK" button.
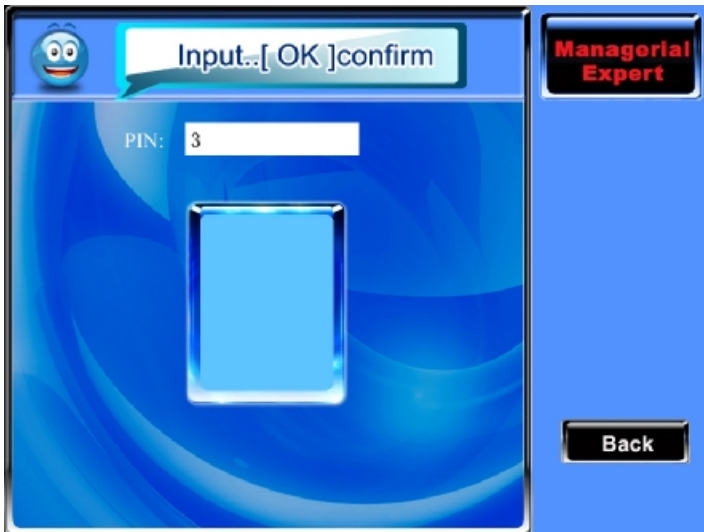
Step 2: type the registration number by the keyboard (if the number is already existing in the user equipment, the equipment will prompt whether the information will be copied to the card), then press the "OK" button.

Step 3: place the card near the induction area like tradition swipe card, until the equipment tips registration / copy is successful.

2, the certification:

Wave the card in the induction area, after the card is found by the equipment, then remove the card, equipment will prompt that the verification is successful and complete verification.

Note: Please enter the User Access Control settings to change the verification method to RF, otherwise it will fail to verify.

2.3.2 Enroll FP Card

Register their fingerprints and write fingerprints into the card.

Instruction

1, registration

Step 1: Select the button to register their fingerprints cards, press "OK" button.

Step 2: Type the registration number by the keyboard (if the number is already existing in the user equipment, the equipment will prompt whether the information will be copied to the card, go to Step 4), then press the OK button to enter the fingerprint registration interface.

Step 3: properly press the finger for three times.

Step 4: equipment will prompt to punch the cards

Step 5: place the card near induction area, waiting for the equipment will read fingerprint data into the card, until the success of the registration equipment tips appear.

2, the certification:

Place the card near the sensors area and wave it, after the equipment find the card, remove it from the sensor, equipment tips to press fingerprint, after the successful completion of verification. If the placed fingerprint is inconsistent with one that is stored in cards, than failed to verified.

2.3.3 Erase card information

The current information in the used card will be deleted all.

Instruction

place the card under the induction space, waiting for the equipment remove the card information, if the card data has been stored in the devices, the equipment will also asks if you want to delete the information from the equipment, choose "Yes" to remove within the user Fingerprints and information from the equipment, choose "No" to retain information on the device.

2.3.4 Copy card information

Card information will be copied to the device (after copied, the fingerprint still exist in card), finish coping. It is able to directly punch-in/out by fingerprint on the device, without the use of Mifare cards.

Instruction
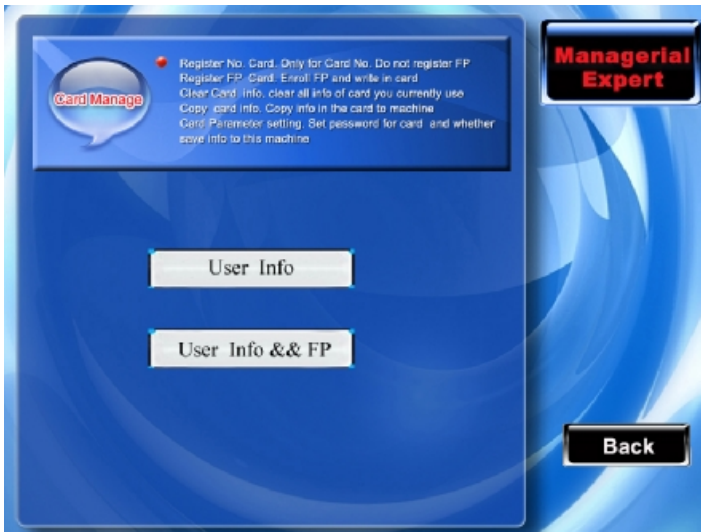
scroll▲ / ▼ button to select only copy user information, or copy user information and fingerprint, then "OK" button

2.3.5 Card setting

Setup a password of Mifare card and whether save the information to the machine.

Fingerprint Card Password: after set the password, the device will write the password into fingerprint card that has been registered on the machine, this fingerprint card can only be used on this machine.

Information must save to this machine: While is registering card No or fingerprint card, whether or not saved to the registered information to the machine. If selected as "No", only the information will be stored on the card; selected as a "yes", then the card and the equipment all have the data.

Instruction

Scroll ▲ / ▼ button to move the cursor to the setting item. If it is the input box, press the number keys of keyboard to input to the set value ,if the rolling box, scroll ◄/► key to switch to set the value , directly press the "OK" button or F7 to save the settings and return to the saving interface , press The "ESC" F8 or cancel your settings and return on an interface.
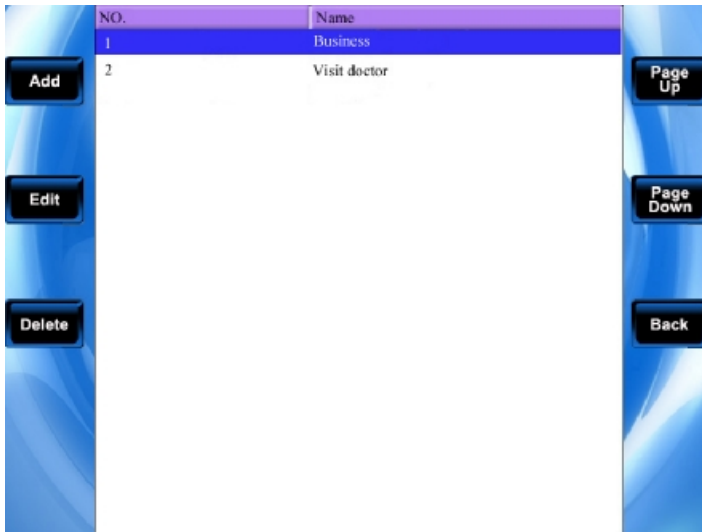
Note: card induction space locate in the fingerprint sensor above 3 cm-5cm area.

2.4 work codes★

Time & Attendance record is basis to compute payroll, the staff possibly assign to the different working category, also possibly has dissimilar kind of work in one factory in the different time, the different work category has dissimilar the reward, therefore, the equipment provide user with parameter to indicate tracked record that belongs to kind of working category in a factory, provide convenience and very easy to process time & attendance data ,could fast distinguish the different punching in/out situation .

Note only some specify model of machine provide this function

Instruction

Scroll the ▲/▼key to view work code line by line .

Scroll the F5/F6 key to view work code s page by page.

Press F1 add a new working code

Press the "OK" key to edit view work code of your choice.

Press the ⁗/←key, the menu to set work code will appear.

2.4.1 **Set work code**

1) Add the work code

Press F1 to add a work code.

Code: A number word code of this work code.

Name: express the mean of this work code

Instruction
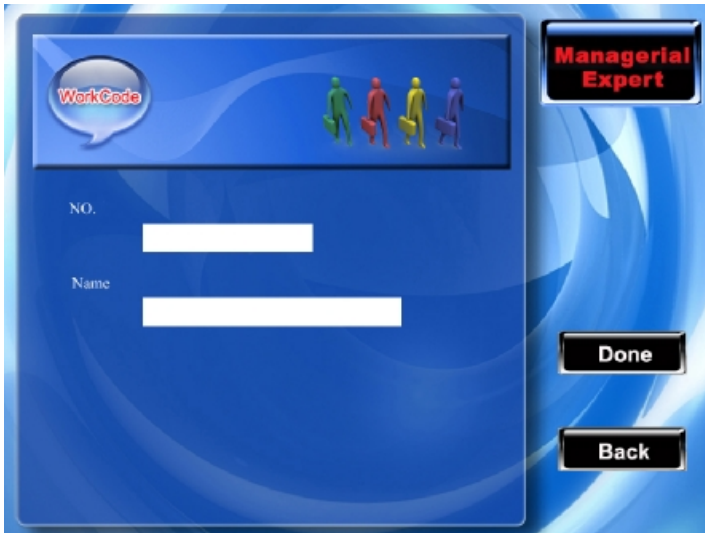
scroll the ▲/▼ key to switch input box , type into figure by numerical key, start T9 input method to enter name, after complete setting press the "OK" button or F7 to save the settings and return to the save interface , press The "ESC" F8 or cancel your settings and return previous interface

2) Edit the work code.
Press OK or F2 to change the selected work code
3) Delete the work code
Press F3 to delete the selected work code

2.4.2 Using work code

When the equipment is in the standby interface, press shortcut t (set it in keyboard definition) enter the work code input interface.
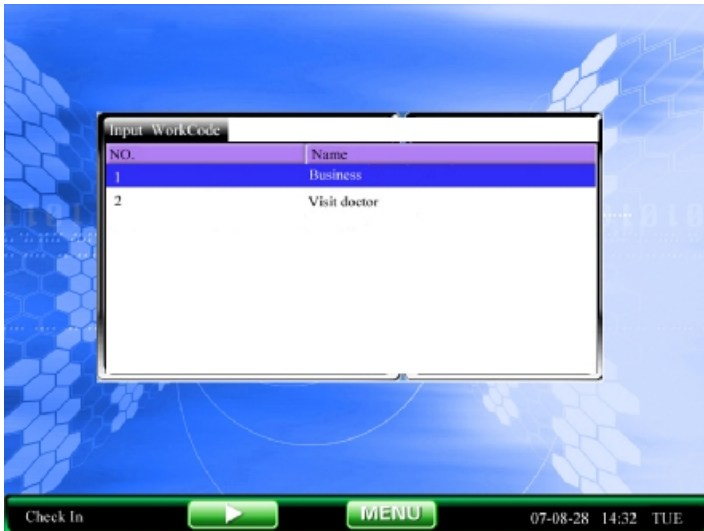
The user may directly input work code, press OK key to confirm. The name of work code will appear on state bar(for 5 second), then press OK key to return main interface.

2.5 Access Control setting ★

Access Control settings are designed for user's Time Period and control unlocks and related parameters of equipment settings.

if Registered users are unable to unlock until he/she comply with the following conditions:

1, the current unlock time should be within any effective Time Scope of the User Time period or the user group Time Period;

2, where the user must be in unlock group combine (user also can

work with other group unlock combine, but it is unable to unlock until user work with together).

New register user belong to the first users group by system default, the default the group Time Period is "1", the default unlock combine is the first group, and newly registered users is defaulted as the unlock state (if the user has modify the related setting of the Access Control, the system will change along with users).

Instructions:
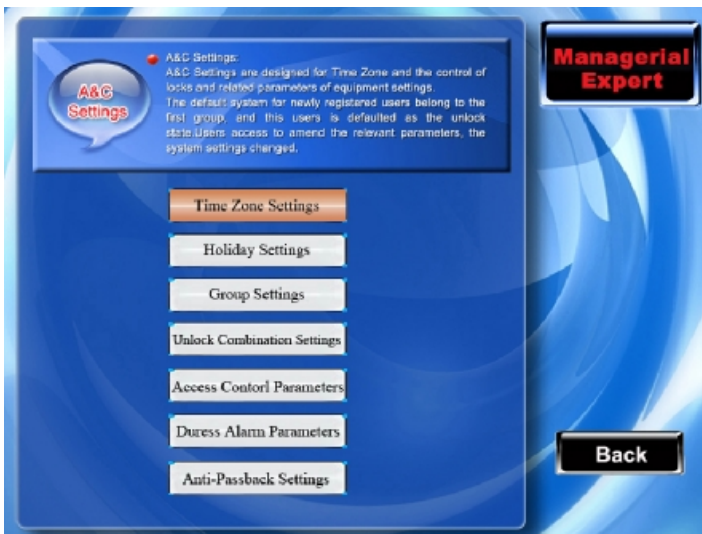
Scroll ▲ / ▼ key to select, press OK button to perform selected item.

2.5.1 Time Period Setting

Time Period is a minimum Time Period unit of Access Control

option. The whole system can be defined with maximum 50 Time Period. Each Time Period is the defined as seven hours a week, each Time Period is the effective time in 24 hours a day. Each user can own maximum3 Time Period, the three Time Periods are "or" relationship, as long as the Time Period the certification to meet one of these three Time Periods is effective. The time of each Time Period format: HH: MM-HH: MM, in accordance with the 24-hour system that is accurate to the minute.

The end of time is less than starting time (23:57 - 23:56) that represent the day is prohibited, ending time is larger than starting time (00:00 - 23:59) that take effective in this range.

Users unlock the effective time of: opening day (00:00-23:59), or time, the ending time than the beginning of time.

Note: the system's default Time Period is the No. 1 for opening all day (that is, newly registered users is permitted to unlock).

Instructions

TZ	SUN		MON		TUE		WED		THU	
1	23:57	23:56	08:00	18:00	08:00	18:00	08:00	18:00	08:00	2
2	23:57	23:56	08:00	18:00	08:00	18:00	08:00	18:00	08:00	2
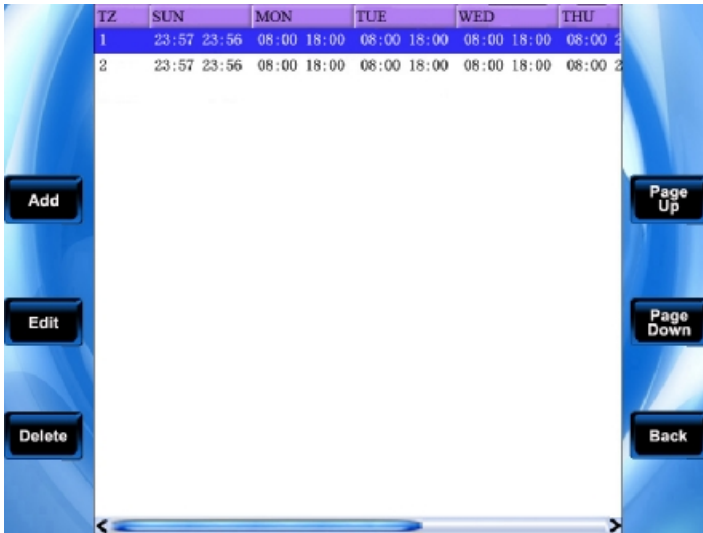
Be able to view all the Time Period of the current setting from the list.

Scroll ▲ / ▼ keys to view of the Time Period line byline.

Press F6/F7 to view Time Period page by page.

Scroll ◀/▶keys to browse the complete information of The Time Period of the current selection.

1) Add Time Period

Press F2 on the new time period:
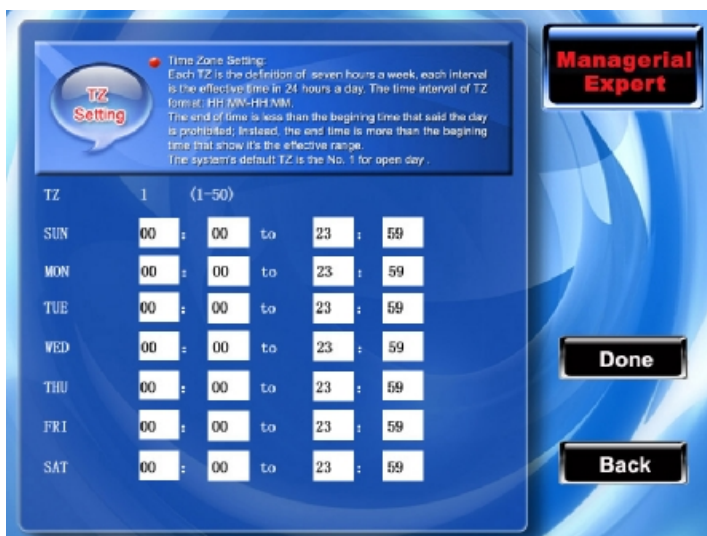
The system will automatically assign a serial number of Time Period   in accordance with the priorities, scroll ▲ / ▼, ◀/▶button to move the cursor to the input box, press the key to input figures of the Time Period, after the completion of setting , press the ▥/◄┘/ F7 save the settings, press F8 / "ESC" Exit.

2)   Edit Time Period

Press F3 to edit the selected Time Period.

3)   Delete Time Period
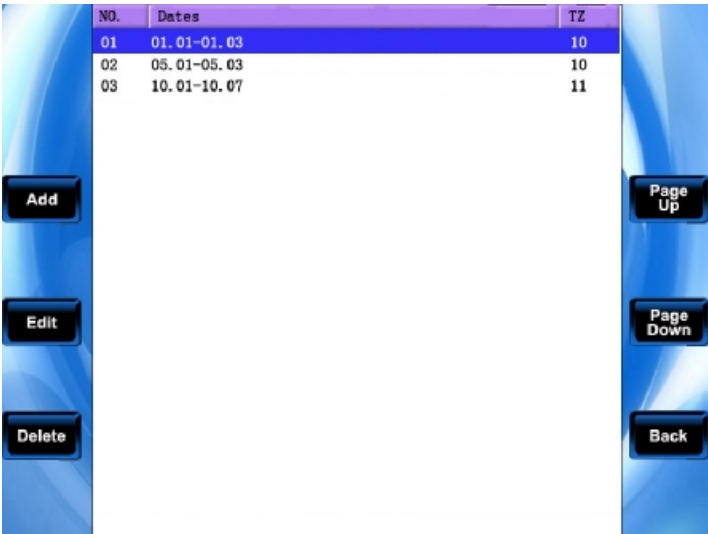
Press F4 to delete selected the current Time Period. 4) Exit the Time Period setting

press F8 / "ESC" exit from the Time Period setting.

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2.5.2 **Holidays setting**

Introduce the concept of holidays to Access Control. Whenever the holidays is taken, we may need a special Access Control hour, but it is very tedious to   change everyone's Access Control   hours, so can   set up a holiday Access control hour, and this Access control hours is applicable to all staff.

Instructions

It is allowed to view all the holidays of the current setting from the list. Scroll ▲ / ▼ keys to view of the holidays line byline. Press F6/F7 to view the holiday page by page.

1)   Add Holiday

Press F2 add the new Holiday:

The system will automatically assign a serial number of holiday in accordance with the priorities serial number, scroll ▲ / ▼, ◄/►button to move the cursor to the input box, press the keyboard to input figures of the holiday, after the completion of setting, press the ⫸/◄┘/ F7 save the settings, press F8 / "ESC" Exit.

2) Edit holiday

Press F3 to edit the selected Holiday.

3) Delete Holiday

Press F4 to delete the selected current holiday.

Note: If the Access Control holiday hours has been set, the user in the holidays of a few days open the door that depend on the time set here

2.5.3 Group setting

Group function is divided user into groups, personnel management, the group using the default group staff Time Period, the group is allowed to set the user Time Period. Each group have three Time Periods. Newly registered users belong to one group by default, but who can be re-assigned to other various groups.

Instructions

It is allowed to view all the Access Control Group of the current setting from the list.

Scroll ▲ / ▼ keys to view of the Access Control Group line by line.

Press F6/F7 to view Access Control Group page by page.

1) Add Access Control

Press F2 to enter the new interface, such as adding a Group that include Time Period 2 and Time Period 3:

Scroll ▲ / ▼ key to move the cursor to the items to be set up. If it is the input box，input to provide value with the small number keyboard，If it is a rolling box, scroll ◄/ ►key to switch and set its value, after complete setting, directly press the menu keys to save setting and return the previous interface, press the "ESC " button to cancel and return to the previous interface.

Note: During holiday, the open-door time zone of this group keeps to the following rules:

1. When the holidays is set as effective, the member in the group can open the door in both access control time zone and holiday time zone.

2. When the holidays is set as ineffective, the group member can open the door in the access control time zone except for holiday time zone.

2) Edit Access Control Group

Press F3 to edit the selected Access Control Group.

3) Delete Access Control Group.

Press F4 to delete selected the current Access Control Group .

2.5.4 Unlock combination setting

Each group will be combined into different unlock combination, so that we can achieve multiple authentication functions and improving the Access Control security. one in the largest unlock combination that can have five groups formed.

Instructions
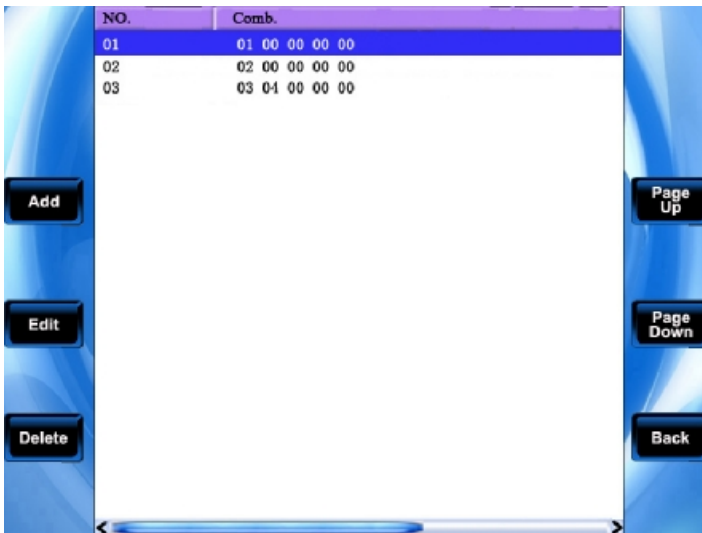
It is allowed to view all the unlock combination Access Control Group of the current setting from the list.

Scroll ▲ / ▼ keys to view of the unlock combination Access Control Group line byline.

Press F6/F7 to view unlock combination Access Control Group page by page

above The figure there are three unlock combination in equipment, the first, the staff of the Group 1 can pass verification to unlock, and the other is the staff of Group 2 pass verification to unlock; Third Group 3 and Group 4 of the people together through the verification Be able to unlock.

4) new unlock combination

Press a menu button, the operation menu appears.

Press F 2 to enter newly add interface such as add a the combination that can unlock in event of which group 2, group 3 together verify successful, as shown below:
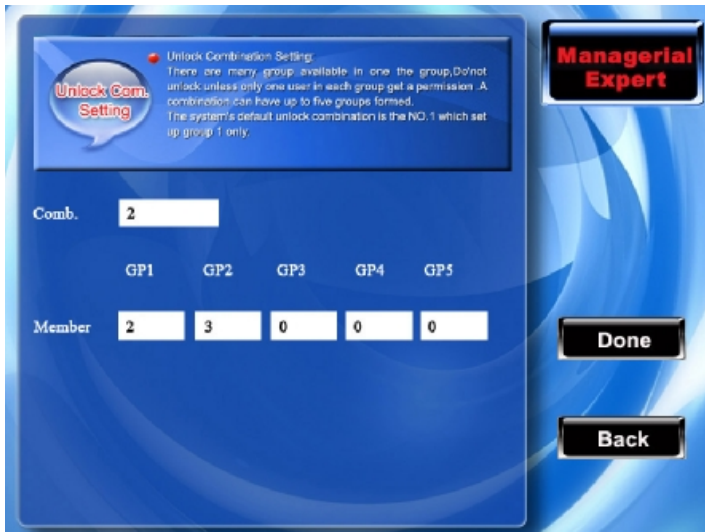
Scroll ▲ / ▼ key to move the cursor to the input box, input the value to be set through the small number keyboard, after the completion, press the menu keys to save settings, Press the ESC key to exit

2) Edit unlock combination of Access Control Group

Press F3 to edit the selected Access Control Group.

3) Delete unlocks combination Access Control Group.

Press F4 to delete selected the current Access Control Group.

2.5.5 Access Control Parameters

Configure Lock control and related equipment parameters.
Duration of locks driving: The equipment control performance to unlock after how long time. (RMS 1 ~ 10 seconds)

door sensor delay: the door sensor delay is the duration after the door was opened, How long time to check door sensor after a period of time before detection to open the door, if door sensor state and door sensor switch inconsistent normal began alarm, during this period of time is door sensor delay. (RMS 1 ~ 5 seconds)

door sensor : There are three type: No, normally open, and NC normal closed; None   referring to the non-use of door sensor , and normally open   the doors opened that is normal, and normally close that door closed is normal state.

Door sensor alarm delay: Do not detect door sensor state at normal state , if over this hours to produce alarm signals, the hour is door sensor alarm delay. (RMS 0 ~ 99 seconds)
Alarm Times by mistake: When the number of identification fail to pass arrived at the number of the wrong values, they have a warning signal. (RMS 0 ~ 9th)

Normal close Time Period : Access Control often set the door to closed during the Period of Time, or any person in this period of time is   not   able to unlock.

Normally open : set up a regular hours in Access Control system, the lock in this period of time is in the opening   state .

The validity of holidays: definition normally open or normally closed at the time of the holidays, set a specific period of time take effect.

Note: 1, if the Time Period of normally open or normally closed has been set, please switch door sensor to no, otherwise it will produce alarm signal during Normal close Time Period or Normal open Time Period .

2, If the normally open or normally closed Time Period is not defined yet the time, the equipment will prompt that you define the Time Period, and transferred to the Time Period interface , to adding.

Instructions:

Scroll ▲ / ▼ key to move the cursor to the items to be set up. If it

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is the input box， input to provide value with the small number keyboard， If it is a rolling box, scroll ◄/ ►key to switch and set its value, after complete setting, directly press the menu keys to save setting and return the previous interface, press the "ESC " button to Cancel and return to the previous interface.

2.5.6 Duress alarm parameters

Machines also has Duress alarm parameter setting, use newly enroll specialties fingerprint or define an enrolled fingerprint as the duress fingerprint , the system will trigger an alarm signal when this fingerprint has been authenticate through fair and foul.
Seeking help by Keys: If this item set as "Yes", hold down Help keys (for three seconds and above), produce the recourse signal; press the Help keys followed (3 seconds) or input ID or place fingerprint, after the success of identification at the same time a Duress alarm will be triggered , if the keys for help is set to "no", then press and hold down "▼" button, take no role.
1:1 verification methods alarm: If this item is set to "Yes", after users performance 1:1 verification successfully, will produce alarm signals. Otherwise there will be no warning signal.
1: N verification methods alarm: If this item is set to, "Yes", after users performance 1: N verification successfully, will produce alarm signals. Otherwise there will be no warning signal.
Password alarm: If item is set to, "Yes", after user go on password verification successfully, will trigger alarm signals, otherwise it will not produce alarm signal.
Alarm duration: after trigger the Duress alarm, Do not directly

output signal, but after a period of time that can be defined, then automatically alarm signal (0-255 seconds).

Instructions:
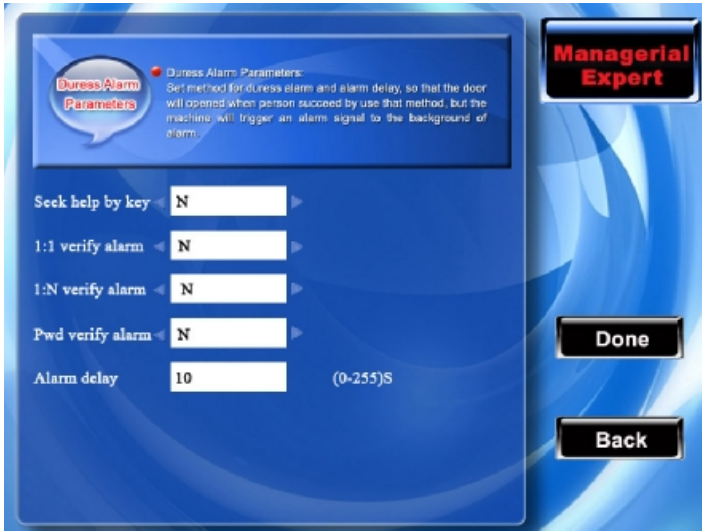
Scroll ▲ / ▼ key to move the cursor to the items to be set up. If the input box by the small number of key keyboard input to provide value If it is a rolling box, press ◄/ ►key switch to set its value, directly installed by the end of the menu keys can be set up and returned to the preservation of the previous interface, Press the "ESC "Cancel to return to the previous set and interface

2.5.7 **Anti-pass back Setting★**

Configure Anti-pass back function of this device, for more detail;

please refer to appendix 7 about anti-pass back function.

2.5.8 Relieve alarm

Equipment is in a state of alarm, press the ▥/← menu button, the device will be called "whether to relieve alarm?", alarm has been thrill until If you relieve alarm state. After choice is to relieve alarm, the equipment will return to normally state.

The type of alarm equipment: there are door sensor alarm, which detection door was opened without authorization, anti-dismantle alarm. Duress alarm

3 System Setting

To set up system parameter, make the equipment at the function, display with the perfect exhibition, pursue user's satisfactions.

3.1 Systems parameters

1: 1 matching threshold: When use ID+ fingerprint to recognize. Threshold a predefined number , often controlled by a biometric system administrator , which establishes the degree of correlation necessary for a comparison to be deemed a match .if the score resulting from template comparison exceed the threshold , the templates are a "match" (though the template them selves are not identical

1: N matching threshold: the degree of correlation matches with the registration template.

Recommend matching threshold setting: e. (effect value is 1 ~ 60 minutes)

Suggested Threshold Settings

FRR	FAR	One-to-many	One-to-one
High	Low	45	25
Middle	Middle	35	15
Low	High	25	10

Time format: Set up the time format in the fingerprint initial interface.

Scroll◄/► key to choose form, the fingerprint machine supports 10 kinds of dates forms, YY-MM-DD, YY/MM/DD, YY.MM.DD, MM-DD-YY,   MM/DD/YY,   MM.DD.YY,   DD-MM-YY, DD/MM/YY, DD.MM.YY, YYYYMMDD, and other date form of your choice

Keyboard voice: Scroll the ◄/►key to determine the whether send a sound when you press key , if set the option as "Yes" ,when press key the machine will utter, if set the option as ("No") you press key the machine doesn't utter.

Voice (Adjvo): Through the ◄/►/ key configure the voice prompt, the equipment can produces the corresponding voice Prompt when the operation.

Volume: Adjust volume. Scroll ◄/►key to adjust volume as your

favor

Alarm attendance log(Alm Attlog), When the remainder log capacity reached set numerical value, it will automatically sound warning that logs will be full (virtual value is 1-99).

Recheck Minute: set it within the scope (unit: minute). Someone attendance has been recorded, then the second record will not display (virtual value is 66).

Fingerprint sensitivity: adjust the fingerprint sensors, the fingerprint sensor are too sensitivity, lower the value; When the first fingerprint sensors is too slow, increase the value of. (Scope 1 ~ 10)

Photo Space warning: When the remaining space of the equipment memory card reach the set value, the equipment will automatically warn for lack of space, please delete the expired photos in time, otherwise the equipment will not be able to store attendance photos.

Instruction

Scroll the▲/▼key to shifts the cursor on the item which you need set. If the item is inputting box, configure the value with the numeric keyboard input; If the item is rolls the frame, Scroll the◄/► key to choose the value you need, after the setting finished, please directly press OK or $^{\text{Ⅲ}/\leftarrow}$(F7) key to save this item and return to preceding interface, press the ESC (F8) key to give up operation and return to interface.

3.2 Time and Date settings

3.2.1 **Time and Date setting**

It is necessary to set the accurate date and time for each of equipments. To obtain guarantee for tracking the accurate attendance result.

Enter option to set the time and date :

Instruction

Scroll the ◄/► key to switch option input box, Scroll▲/▼key to shifts the cursor input box . set up the value with the numeric keyboard input After you set up completed, please press ᴹ/← / "OK" （F7） to save this configuration, press the ESC（F8） key to

abandon operation and return to the up page

3.2.2 **Daylight Saving Time**

Daylight Saving Time, also known as "daylight saving time system" is a man-made the local time for saving energy , during the system is used this unity time known as "daylight saving time." Usually in the early morning of the summer people will be one hour ahead of time, people can get up early and early sleep to save lighting to make full use of resources illumination, save electricity. at autumn fall Then call back one hour. The different countries have different specific requirements of daylight saving time.

In order to meet the needs of daylight saving time, we can offer a special custom features, in XX, XX, XX, XX hours, fast one hour, and by the XX, XX, XX-XX, then slow one hour .

Note: Daylight Saving Time function only provide by certain models.

Instruction

When the device have this functional, in the time period interface there will be set up options:

1) Set Daylight Saving Time option as "NO."

2) Assign Daylight Saving Time start and end times.

For example, setup at 8:00 on April 1, the machines come in the Daylight Saving Time, the counting time will be ahead for one hour. To at 8:00 on October 1, equipment returned to normal time.
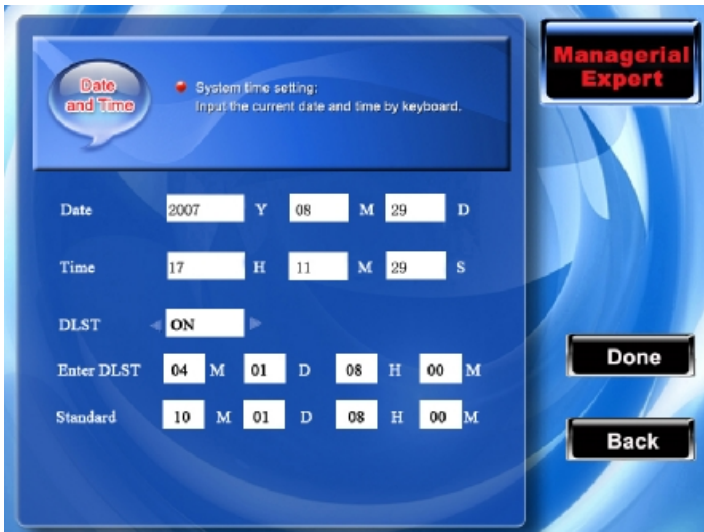
3) press $^{M/\hookleftarrow}$/ "OK" (F7)to save the settings; press the "ESC" (F8) does not save and exit

3.3 Data managements

Delete attendance record (Clear Attlog): Deletes all attendance record.

Delete the complete datum (Clear All): Delete all registrations personnel information, the fingerprint and the attendance record.

Clear Admin Privilege: Change the Administer privilege into ordinary users' option:

Delete Attendance photos: Delete all photos to track all staff the time and attendance record.

Delete blacklist photos: delete the photos which are captured and saved when user fail to punch in/out.

Caution: Unable to restore any file you delete, please careful

Instruction

Scroll the▲/▼ key to shift the cursor on the button which you will operate. press OK to start operation, when the prompt " Are you sure to continue the current this operation?" appear on the equipment, press OK key again , be sure that the data will be deleted, if after you delete the data, the data will be unable to restore. Press ESC (F8) key to exit and return to up aged.

Remove publicity Photo: remove publicity pictures when equipment cycle show in ready working interface. (How to upload pictures, please See 7.4 upload custom publicity Photo)

Instruction

Scroll the "F3/F4" key to preview the publicity picture which has already saved in the equipment, if you want to delete this picture then press F6 key to delete it, after the prompt to delete successfully appear on the equipment , after deleted completed automatically jumps to the next picture. If you want to delete all public picture in the equipment, Press   ▯/↵（**F7**）button. Press the ESC (F8) key to return to the data management interface.

3.4 Upgrade firmware

If want to upgrade the firmware of machine, may use USB flash disk to achieve.

Caution: to protect your normal use, we need to restriction that

forbid anyone upgrade the firmware random, except with the help of the dealer upgrading the firmware. Inaccuracy upgrade would trouble the machine, that possibly affect the daily use.

Instruction

Plug the USB flash disk with Upgrade file into slot of equipment, click this item, the equipment will automatically recognize upgrading file and upgrade firmware, the corresponding prompt will appear to show upgrade successfully or fail.

3.5 Restore Setting

Restore the communications setting, system settings, to the factory settings.

Reset all the default Parameters: the parameters of the machine will be fully restored to factory settings.

Reset the keyboard Parameters: the keyboard corresponding definition set to the factory settings.

Reset Alarm Parameters: the alarm settings call back to the factory settings.

Reset Other Parameters: communications settings, system parameters, such as the interface settings call back to the factory settings.

Reset Access Parameters: access control settings and user access control settings back to the factory settings

Instruction

Scroll ▲ / ▼ key to select, press OK button to restore the settings.

Note: to restores the setting cannot erase the personnel information and the attendance record in the equipment.

3.6 Automatically test

The equipment provides with the automatic test function to test each module in the fingerprint machine. The function helps the operator firstly check the module, if the machine has some problem. Include TFT screen, voice prompt, clock, keyboard, and fingerprint sensor test. Choose the option to test.

Scroll the ▲/▼ key to select the item that needs to be tested, press the "OK" key to start the testing

3.6.1 Test TFT screen

Equipment provides auto-test to check the TFT screen demonstration effect. Through when the screen displays in color, entire white, entire black, you can inspect each place of the screen at this time, to check whether the TFT screen demonstrates normally.

Press "OK" to continue to test whiles the test process, press ESC key to exit from this test.

3.6.2 Test pronunciations

The equipment offer auto-test effect of the voice prompt, through playing voice file in the equipment, to check whether the voice file is completed and the pronunciation effect is in good or not

Press /"OK"（F7） to continue playing voice while the test process, press "ESC"（F8） key to exit from this test.

3.6.3 Test keyboards

The equipment carries on the automatic detection to each keyboard, to test whether each key of keyboard is normally used. In the keyboard test window, stochastically press any key of the keyboard (except the "OK" and "ESC" F8 key), check whether the key you press accords with the display on the screen. The key you press display in garnet color, otherwise the key in gray black. Press "OK"、"ESC"（F8） key to exit from this test

3.6.4 Test fingerprint Sensor

The auto-test fingerprint sensor tells user whether the sensor is in normal, through the test you can examine the picture resolution of the fingerprint, to whether the fingerprint picture is clear, and the screen will real-time show fingerprint picture that is captured from the finger while you are placing the fingerprint sensor window.

Press "OK"、"ESC"（F8） key to exit from this test.

3.6.5 Real-time clocks

The equipment provides function to test the clock, through stopwatch test you will get result that whether the clock is in normal operation or not.

Press the ⧉ / "OK" key to start to time, press the ⧉ / "OK" key again to stop it, to check whether the equipment time is in accuracy. Press "OK"、"ESC"（F8） key to exit from this test.

4 Communication setting

Set data transmission mode, when font colour appear on the button by blue colour, that indicate the equipment is unable to support this function

4.1 Communication setting

Scroll"▲/▼"key to set communication setting, press OK to enter setting.

If when the data is transferred between the equipment and PC, it is necessary to set the equipment communication parameter according

to the transmission cable. When the equipment and the machine are in the communication, the "in the work... ..." Message will be displayed on the equipment, Please Do not operate the equipment while the test is running.

Note: please inspect the setting here before the machines communicate with the computer, the parameter must be consistent with the one on the communication option in the software.

To find sitting on the fingerprint machine if you are using Ethernet communication, following sitting:

Machine IP address: Default IP is 192.168.1.201, you must change it; Do not set IP as same as the IP of PC that the fingerprint machine connect with.

Subnet mask: Default mask 255.255.255.0, you must change it.

Gateway address: the Default gateway address is 0.0.0.0, if the equipment and PC is not in the identical network segment, set up the gateway address firstly.

Network speed: The network run speed, there are three kinds of options, automatic adoption, 10M, the 100M. Set network speed according to your equipment that is plugged into a locate area network using Ethernet cable.

To find sitting on the fingerprint machine if you are using serial port (RS232/RS485) to communicate between the equipment and PC, configure the following parameter:

Baud rate: the rate at which fingerprint machine communicate with the PC , there are five kinds of options 9600, 19,200, 38,400,

57,600, 1.15200 bit/sec, the high speed communication is quick, we recommend that high speed apply to the RS232communication ; The low speed communication is stable, it is better the low speed apply to theRS485 communication;

RS232: Whether using RS232 communication or not, if the RS232 will be used, then this choice is "Yes";

RS485: Whether using RS485 communication or not, if the RS485 will be used, then this choice is "Yes"

It is necessary to set the serial number before the PC communicates with the fingerprint machine over the RS232/RS485 cable.

Serial number: The serial number of the fingerprint machine, which scope is from 1 to 254, if when using the RS232/RS485 communication, be sure to input this serial number in the software communication interface firstly.

In order to keep up the security of the time & attendance record data, here you may set up the connection password, unless input this connection password in the PC machine software, and fingerprint machine is unable to interconnect to read the data when the fingerprint machine connect to PC successfully.

Connection password: The system default password is 0(namely the password does not exist), it is allowed to set it as other values, after setting up, be sure to input this password before the software communicate with the equipment , otherwise you will fail to create connection between the fingerprint machine and PC software. The connection password length is 1 ~ 6.

Instruction

Scroll the ▲/▼、◄/►key to shift the cursor on the item you need set, scroll the ◄/►key again to shift the value which you choose. After setting up, directly press ▥/⏎ / "OK"（F7）key to save this setting and return to preceding interface, press the "ESC"（F8） key to cancel and return to preceding interface.

4.2 Remote verification ★

Taking standalone machine as fingerprint scanner, its standalone identification function is reserves. With identification and verification, and then stores matching results in the background DB and displays identification results on the fingerprint machine LCD, to complete the task of identification process. Which Identification

algorithm adopts intellectual property algorithm Biokey，the common PCs can act as remote server, the remote sever solution has lower requirement of entire identification system and improve algorithm efficiency, thus assure of feasibility and convenience of solution.

Solution Purpose: large capacity of fingerprint identification, enhanced enterprise internal management, intelligent management, In/Out control for personnel.

Which apply to solve factories and other large databases for slow tracking the attendance problem, and offer the domain and similar DNS solution to resolve persons change in the factory? These server locations are plotted by the logic, dynamic identify the flow person, do not need to manually modify the flows person, the movement to achieve arbitrary. And flexibility in the use of similar DNS provided by DNS function, the system is more stable, the allocation of resources is proper, to improve efficiency in the state of emergency, system can operate normally.

Instruction

Scroll "▲ / ▼" button to select background verification, press the "OK" button to enter settings.

Server IP: fingerprint authentication server set up the IP address (that is, a PC's IP address, with authentication server software)

Remote Authentication: there are four ways available to choose: "NO", "NL", "LO", "LN".

LO (only local), that is, only perform verification on the fingerprint machine (default);

NL (net local), background has verified that after the local verification;

NO (only net), that is, only the background verification;

LN (local net), that is verified after the first local background

verification.

Note: Remote verification function only with certain models.

Press the number keys to type a verification server's IP address, Scroll◀/▶ button to select methods of verification. After the set, directly press OK button or menu button to save your settings and return to the previous interface, Press "ESC" to cancel and return to setting interface.

Remote fingerprint registration

Change the verification model to NL / NO / LN, start the background authentication server procedures, remote registration fingerprint registration button will appear on the equipment user interface, you can achieve remote fingerprint registration

4.3 Wireless settings★

Scroll "▲ / ▼" button to select dial-up settings, click "OK" button to enter settings

Before the equipment apply to wireless Network, another physical component of that 802.11 network consist Distribution system, Access Point, Wireless Medium must exist.

You must know the ESSID (name of network) of local network you want to connect to

Wireless Network ID: local wireless Network that you want to connect with (capital letter and small letter is different)

Network model: there are two option , Infrastructure Model, and Ad－hoc Model; this Infrastructure Model will apply to Hub and Spoke wireless network, the Ad－hoc Model is used in the peer to peer wireless network..

the Authentication Type: The Infrastructure Model include five Authentication Type that are   OPEN 、SHARED、 WEPAUTO、 WPAPSK、 WPA2PS.

the Ad－hoc Model include OPEN 、SHARED、 WEPAUTO WPANONE four type of Authentication Type.

Encrypt Type: When the item NONE of encrypt Type is selected, then the password in WEP (Wired Equivalent Privacy) and WPA (WiFi Protested Access) item is not permitted to modify it, it is not need to input password too.

This PC IP address: If there is the DHCP function in the 802.11 network Distribution system, you may choose DHCP, press OK to exit.

Otherwise, type in the IP Address，Subnet Mask blank with the correct figure, press OK to exit to main interface.

Instruction

Scroll▲ / ▼ key to locate the cursor in the inputting box or the button, start the T9 inputting method, type the network identify ID, must correctly enter network identification ID, otherwise it will be unable to move the cursor to the other input box, through scroll◄/► button to select the Items that need to input. Directly input value.

Set a password:

According to the choice of authentication methods and different forms of encryption, password interface are also different. There are two settings WEP and WPA available.

WEP password

Type the password to meet the requirements, the WEP password in the four groups' password, if the four groups have been set up and are the correct password, only the currently selected password take effect.

Assigned IP:

It specified equipment in the IP of wireless network. And communications in the network settings is not associated

After the set directly press $\blacksquare\!\!/\!\!\leftarrow$ / "OK" (F7) button to save your settings and return on an interface, press the "ESC" (F8) to cancel and return to previous interface.

4.4 Available wireless network★

Search the wireless signal can be received by equipment in the current environment and view the strength of signals, to help users find the network he/she need quickly and easily

Press F6 key to refresh the list.

Press F7 key to set the selected wireless network parameters.

4.5 dial-up settings★

Scroll "▲ / ▼" button to select dial-up settings, press "OK" button to enter settings.

1, SIM card slot

Plug the SIM card into the slot until the equipment lock SIM .
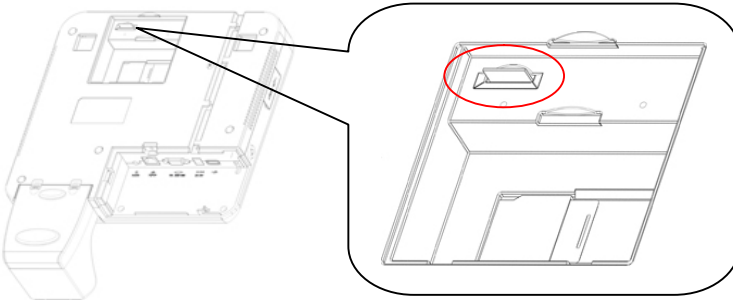
2, dial-up settings

When equipment is used in the dial-up network, please ensure that the equipment is covered in a GPRS or CDMA signal, and it is necessary to know the used modem types, APN name, and access numbers.

Modem type: According to the SIM card type of equipment installed, choose the optional modem types.

Frequency: Local wireless network provider supply Network frequency.

APN name: Access Point Name, "access point name", used to identify GPRS / CDMA provider.

User name and password: verify whether the user have permission to use the network.

Access Numbers: GPRS / CDMA dial –up number.

Redial interval: If after the network is disconnecting from time to time, it will automatically redial interval.

The number of redial-up times: If after the network disconnecting

the numbers of the equipment try to redial up the network.

Instruction

Scroll ▲ / ▼ key switch box or enter the cursor to the button to start the T9 input method type APN name or user name, the other way that through the input box scroll◀/▶ button to select the items need to, or directly type a numeric value. After the set directly press ▥/↵ / "OK" (F7) button to save your settings and return on an interface, press the "ESC" (F8) to cancel and return to previous interface.

Server Settings

Set server parameters of Equipment, the server is used for the collection of equipment time and attendance records (the installed server on the companies provide data collection software), set up

after the right equipment will be automatically sent the server time and attendance records.

Keep online: equipment is maintained online.

Upload interval: after passing a defined of period time, the attendance record will be automatically uploaded to the server by equipment.

Search way: choose to use GPRS or LAN way to search.

Search interval: after pass period of time, the equipment will automatically search.

Address Type: Set type of the server's address and assign the values.

Instruction

Scroll ▲ / ▼ switch the cursor keys to enter the box through / button to select the items need to, or directly enter a numeric value. After the set directly press $^{M/\leftarrow}$ / "OK" (F7) button to save your settings and return on an interface, press the "ESC" (F8)to cancel and return to previous interface.

3, GPRS usage

1) dial-up

After setting. Make sure to restart the equipment, the equipment will automatically dial-up, dial-up successfully, GPRS icon will appear on the bottom of the screen:

2）data download

after Dial-up successfully , on the server start the download data program, when the staff verified successfully on the terminal, the device will automatically send data to the server, while is downloading, the

interface prompt is "in communications……";

If fail to download, the interface will appear as follows:
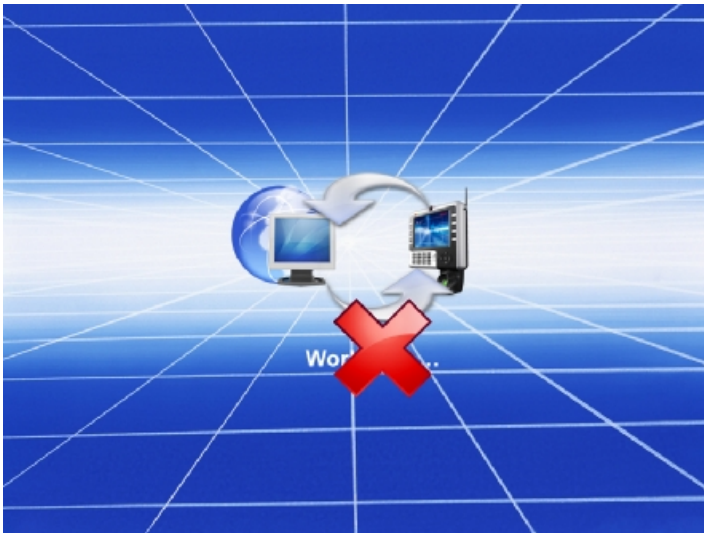
4.6 Wiegand input settings ★

Scroll"▲ / ▼" button to select Wiegand input settings, press "OK" button to enter settings.

Customized format: the input format of Wigand is definite by user-self.

Bit digit: bit of wiegand data length.

Pulse Width: refers to the Wiegand pulse width by the default is 100 microseconds, can be adjusted within the scope of 20-800.

Pulse interval: the default value is 900 microseconds, can be adjusted between the 200-20000.

Enter content: wiegand input signal contained in the content, choose to include work code, or card number.

Note: Wiegand input settings function only provide with by certain models

Instruction
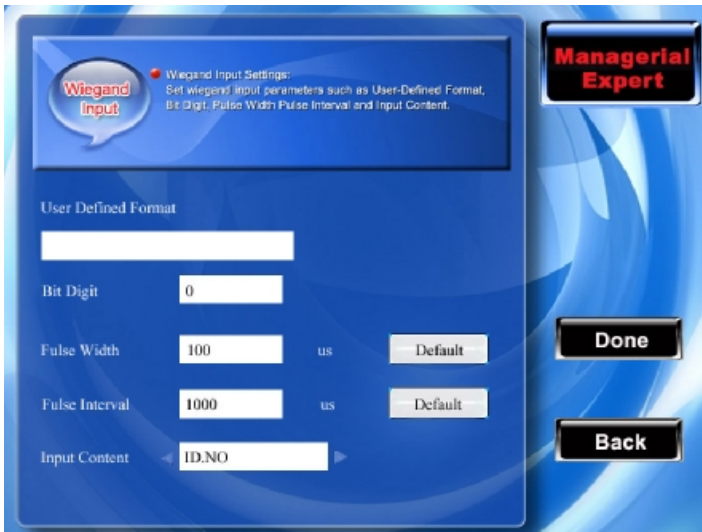
Enter the name of self-definition format, Scroll ▲ / ▼ key to move the cursor to the items to be set up. If it is the input box，input to provide value with the small number keyboard，If it is a rolling box, scroll ◄/ ►key to switch and set its value, after complete setting, directly press the menu keys to save setting and return the previous interface, press the "ESC " button to Cancel and return to the previous interface.

4.7 Wiegand output settings ★

Scroll "▲ / ▼" button to select Wiegand output settings, press "OK" button to enter settings.

Format: refers to the built-in system has been defined format, users do not need to specify the total length of all information and the

location.

There are 4 definition format by the system default: wiegand26 with sitecode, wiegand34 with sitecode, wiegand26 without sitecode, wiegand34 without sitecode. wiegand26 with sitecode refer to the wiegand format the equipment sent contains 8 bit for the facility code field . wiegand26 without sitecode without refer to the W26 format output without the facility code field. If there is no the facility code field setting, the output signal does not contain this information, if set up a site code, the output is set a site code (similar to machines ID, this is different from the user's own code is designated, and Can be repeated in the different machines, the range between 0-255).

Failure ID: after the failure to verify, the failure of ID number will be sent, when the option is invalid, do not sent. Range between 0-65534.

Site Code: similar to machines ID, this is different from the user's own code is designated, and can be duplicated for the different machines, the range between 0-255.

Pulse Width: refers to the pulse width of Wigand signal the default Width is 100 microseconds, can be adjusted within the scope of 20-800.

Pulse interval: the default interval is 900 microseconds, can be adjusted between the 200-20000.

Output: wiegand signals contain the content, there are option to include work code, or card number.

Note: Wiegand output function only provide with by certain models.

Instruction
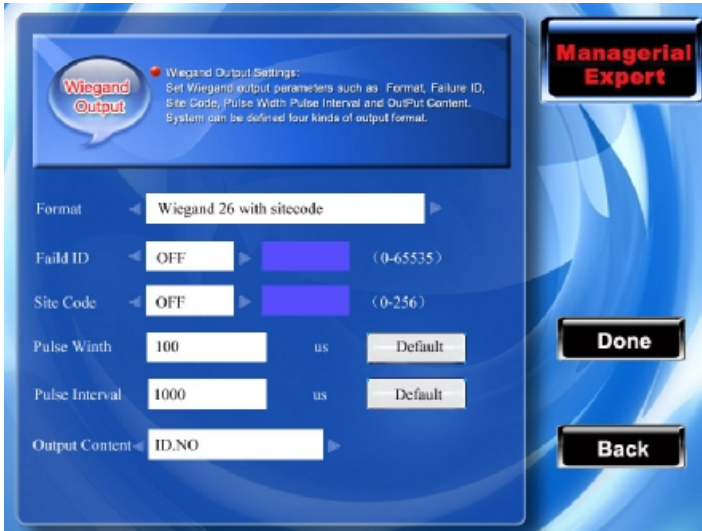
Scroll ▲ / ▼ button to move the cursor to the item to be set up. If the input box, click on the number keys keyboard input to set the value if the rolling box, scroll ◀/▶ button to switch to the value of, for example, the failure ID was revised to 10, press ◀/▶ button to set the options to open, then enter10 to the   box. After the set directly press ▦↵ / "OK" (F7) button to save your settings and return on an interface, press the "ESC" (F8) to cancel and return to previous interface.

4.8 Print Settings ★

Scroll"▲ / ▼" button to select print settings, press "OK" button to enter settings.

Printer: there are total of seven kinds of optional print mode.

Note: 1, attendance status shows: I indicate Check-In, O indicate Check-Out, T indicate BreakOut, B indicate Break-In, i indicate OT-IN, o OT-OUT.

2, if no special note, the date -> with the same date format of the machine setting, the time format: HH: MM: SS.

3, without special note automatically print.

a. Mode 1:

Employee No. , machine ID, date, Time, attendance status

b. Mode 2:

ID.NO: Employee No.

Date attendance status

Date Time
c. Mode 3:

machine ID Name, date and time
d. mode 4 : (Note: the time format: HH: MM; date format: DD / MM / YYYY)

Control Asistencia

==================

Attendance status

Date Time .....

Codigo ..... workers,

===== Gracias =====

e. mode 5 : (Note: 1, after verification successfully will prompt the need to print. 2, the time format: HH: MM)

Date, time, attendance status

VO

f. Mode6:

ID USER: Employee No.

Date attendance status

Date Time

VO

g. Mode7:

Usr.ID: Employee No. ,

Nombre: Name

Fecha / Hora: attendance status

Date Time

Note: 1, the printing function only provide with by some models, and the Chinese machine does not support this feature.

2, the baud rate of fingerprint machines and printers (Super Terminal) must be consistent.

3, if the default print format can not meet your requstment, and please contact my company business representative

Instruction
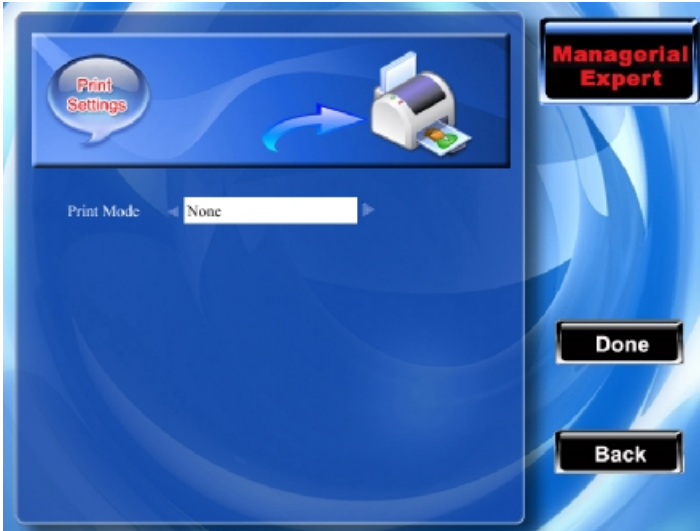
Scroll ◀/▶button to select print mode, after set up directly Press OK button or menu button to save your settings and return previous interface, press "ESC" to cancel setting and return to previous interface.

5 User profile

User Profile settings can be set up according to their personal preferences show some style and operation method.

5.1 User Customize

According to their personal preferences, users can set up the initial interface style.

the times of retrying 1:1 verification or password: users go on 1:1 verification or password, who may forget the right registered finger or improperly press fingers. The setting provides user with convenience, and reduces to repeat keys, makes the user to retry the verification after failed to verify within the limited times.

Clock options: When the user is going on the verification operation, regardless it is success or failure, the Clock pattern will display you choose on the screen after verifying.

Public Photo: according to the actual demand, users can upload some public photographs to be displayed on the screen.

1) Photo cyclical interval : how long the interval to shift Photo Display (Scope for 3 to 999 seconds)

2) Duration of the clock showed that after the user is verified how long the clock pictures show. After a show duration, the initial public photos will be displayed on the interface. (Scope 0 ~ 999 seconds, 0 clock that has been shown.)

Timing Sleep: When the equipment was not operating in the state to set up a regular sleep time after the equipment will enter a dormant state. Pressing any button or touch fingers that can awake up the equipment.

Screen brightness adjustments: adjust TFT screen brightness.

Fingerprint Image Display: whether register or match the fingerprint image will be displayed on the screen. There are four options: register and match, only match or register not to display.

Locked shut down key: choose whether or not to lock off button. As a "yes", press shut down key invalid. As "no", press shutting down key shutdown after three seconds.

Background standby mode: When the equipment in a standby status, there are t three kinds of choice background pattern: First, publicity picture, second play the background music.   the third is flash player.

Attendance camera mode: When the staff punch-in./out, whether capture   and save the current staff 's photo. Here are the settings for all staff.

A total of four kinds of patterns

Photo: when track staff attendance, taking his/her pictures but does not save photos.

Do not take photographs: when track staff attendance , not to take photographs.

Take pictures and save: when track staff attendance take and save his /her photos.

No passed and save: when track staff attendance staff failed to pass verification three times, the camera take his/her photo and save it.

Note: If the duration of the clock display is set to 0, in ready working state the machine plays full-screen flash; if set to other values, it plays the small screen flash in ready working state.

Instruction

Scroll the ◄► key to choose the box you need input the value with small keyboard, after finishing the setting, please directly press OK or ▦/↵(F7) key to save this item and return to preceding interface, or press the ESC (F8) key to give up operation and return to interface.

5.2 Video Setting★

The built-in camera equipment parameter settings, the camera will have the best performance.

Brightness: Adjustment the brightness of camera capture photo.

Contrast: Adjustment the contrast of camera capture photo.

Picture quality: Setting up quality of the saved picture .

Environment: Setting up the filming environment in which to take effect as the best.

Restore Default: the parameters of the above-mentioned parameters restored to the default values.

Scroll ▲ / ▼ key switching options input box with the small keyboard and input appropriate number keys to adjust the value of the camera , or press the button will restore the default parameters and restore to the default state. After appropriate adjustments by (F7) or "OK" Save settings, press the "return" from set.

Note: the setting is just available to the unit which has camera.

5.3 Screen Calibration

If the touch screen is not sensitive enough to induce the touch, the

screen induction calibration can be adjusted in the menu.

5.4 Bell Setting

Ringing bell to notice people to work is a widely measure in many companies. In tradition, there are two measure to do it by man or with the help of electronic tool. In order to get an economic and convenient management, the time bell function is available in the fingerprint machine. With the schedule bell function, the fingerprint machine will automatically make bell sound during a certain time which is set in advance; when the certain time ends, the bell will automatically stop sounding.

Instruction:

Scroll ▲/▼ key to view the bell setting at line by line.

Scroll F5/F7key to view the bell setting in page by page.

Press " ▮/← " key to begin/end the selected bell.

Press "OK"/F5 to choose one of the bell setting, and enter the edition bell.

Bell time: time out, bell rings;

Sound choice: different sound in different time.

Volumes adjust: Bell sound volume.

 Number of times: times of bell ringing

 Bell state: start this bell or not.

Scroll the▲/▼key to shift the cursor to input box, set up the value with the numeric keyboard input. After the setting, directly press

OK or the $^{M/\hookleftarrow}$ /"OK"（F7） key to save the settings and return to preceding interface, press the ESC(F8) key to give up.

5.5 The Definitions of Keyboards

5.5.1 State Key Definition

Customize the attendance state key in the equipment, after pressing the corresponding state key again, the attendance log is recorded in this state key.

When press any state key on initial interface, the attendance state corresponding to the state key will appear under the leftside of the screen, that is convenient for users to check.

Instruction

Scroll the ▲/▼ key to shift option box, Scroll ◄/► key to change the setting. After the setting completed, please press �📱/⏎ /"OK" （F7） to save this configuration, press the ESC (F8) key to give up the operation and return to the interface.

Note: If some state keys would not be used, then set the state keys as invalid. ◄► 📱/⏎

5.5.2 shortcut definition

The definition of shortcut, that is the buttons can be defined as the attendance status shortcuts or view function shortcuts. On the standby equipment interface, press the corresponding button will be displayed attendance status or rapid access to interface functions.

Instruction

Shortcut	Function	No.	Name
F1	Status key	0	Check In
F2	Status key	1	Check Out
F3	Status key	4	OT In
F4	Undefine		
F5	Status key	5	OT Out
F6	Status key	2	Break Out
F7	Status key	3	Break In
F8	Undefine		
*	View WorkCode		
#	Undefine		
Backspace	Undefine		
Up	Undefine		
Down	Undefine		
Left	Undefine		
Right	Undefine		

Edit

Page Up

Back

Back

Scroll ▲ / ▼ key to scroll shortcuts definition line by line.

Press F6/F7 keys to scroll shortcut definition page by page.

Press F5/OK key to edit the selected shortcuts.

5.5.2.1 set up shortcuts

Select a shortcut, press F5/OK into the editing interface.

Function: Set shortcut. Including the state key, work code, read a short message.

If choice is the key state the following options appear: Code: assign a code to the state keys to facilitate the statistical record of view.

Name: The keys expressed by the state's name.

Automatically switch: When reach the time you set, the device will automatically switch state.

1)　set to function keys

Instruction

Scroll ◀/▶ key to set "#" key as the help button.

2) State key setting

Scroll ▲ / ▼ key to switch option input box, press the number keys on the keyboard, or scroll ◄/► key to select to the set value. After setting, a direct press M/◄┘ button to save your settings and return to the previous interface, press the "ESC" to cancel and return to previous interface

5.5.2.2 Usage of shortcuts

1）State Key

On main interface, press "F5", the corresponding state key will appear at the left bottom of the screen.

Then user can do the verification by fingerprint or password, the equipment will keep the attendance record at the corresponding state

2) shortcut function

For example, in the setting "*" key is set to view the short message.

When there is a short message in the equipment, press "*" button on standby interface, the short message

6 Inquiry Record

Inquiry the attendance records for, attendance photos and other information that is saved in the machine, to facilitate the management staff to keep track of attendance situation.

Scroll ▲ / ▼ button to select the contents to query, press "OK" to start enquiry

6.1 View attlogs

If the fingerprint machine successfully record the staff time & attendance, the record will be saved in. the inquiry record function has been designed in simple and manner to help user find his/her attendance

logs he/she need quickly and easily. this machine offer the inquiry function. Different ways are available in unit to check the users' logs.

Enter the attendance inquiry menu, the first box is used for inputting condition. Enter the ID No. and the Data:

1) All AC. No, that inquiries all staff.
2) Import a certain ID.NO, only for the certain staff attendance record.
   Press ▥/◄┘/ "OK" (F7) key to inquiry, the records that meet you input condition will be displayed on the screen.

Scroll ▲ / ▼ key, move the cursor on the line you want, press ᴹ/↵ /"OK"（F5） to enter attendance record Details view.

For example, on August 28 on the 1st staff, Press Details to check.

If the records fulfill the first page, press F6/F7 to turn on next page..
Press the "ESC" (F8) to return to the previous interface.

6.2 View Time &Attendance Photo★

If this mode is set, as the fingerprint machine is able to take employee photo and save it, while staff punch-in /out, after tracking staff time and attendance successfully, the taken photos will be saved. Here you can query these photos.

Enter to view time &attendance photo mode, first you will find the input box for query condition.

Input the Employee No. you want to query:

1) if your choice is all employ NO, that for all employees.

3) Enter an Employee No., only this staff's attendance photo is allowed to view.

    Enter whether query all the photos, if your choice is no, then enter the date range to query.

Press $^{\text{⩗/↵}}$ / "OK" (F7) began enquiry, after the completion of enquiry, the photo that meets the conditions will display on the screen:

Scroll F3/F4 keys to view the attendance photo that save in the equipment , the total number of photos and which photo is present now are shown by photo below, and the day and time that the pictures were taken are displayed.

6.3 View the blacklisted photos★

If attendance camera mode is set to take pictures and save or not to save, the staff failed to pass attendance verification, the fingerprint machine camera capture his/her photos and save it, these photos are called blacklist photo, here you can query these photos.

Enquiry photo in the blacklist, the first is query condition input box.

Enter whether query all the photos, if your choice is no, then enter the date range to query.

press / "OK" (F7) began enquiry, after the completion of enquiry, these photos that meets the conditions will display on the screen：

Scroll F3/F4 keys to view the attendance photo that save in the equipment , the total number of photos and which photo   present now is shown by photo below, and the day and time the pictures were taken are displayed.

7 USB Flash Disk Management

Using USB flash disk is able to download user's information, fingerprint templates, attendance logs, and upload it into the tracking software for processing. Mearwhile, user's information and fingerprint templates are able to upload into other fingerprint equipments. When the font of button display in blue color , means that the device does not support this function, this function is not available.

Instruction

7.1 Upload User data

Upload user's information and fingerprint templates which have been saved in the USB flash disk into the equipment.

Instruction

Plug the USB flash disk into the USB slot of the fingerprint machine, scroll "▲/▼" key to choose the user data that you want to upload, press the OK key. The two files, user.dat (user information) and template.dat (fingerprint template), will be uploaded to the machine. If the two files in the USB flash disk are not complete, the prompt "failed to deal data, check your U flash disk ".

7.2 Download User's Data

Save all user's information and fingerprint templates from the equipment into the USB flash disk.

Instruction

Operation is similar with the attendance data.

Plug the USB flash disk into the USB slot of the fingerprint machine, Scroll the "▲/▼" key to choose user data you want to download, if download successfully , the files user.dat (user information) and template.dat (fingerprint template) will be viewed availably

7.3 Upload the Customized Picture

Upload the file with JPG picture format which front name as "ad_"

in the USB flash disk into the equipment, after these pictures have been transfer to the equipment, it will display in the initial window. (Picture specification, please see appendix 4)

Instruction

Plug the USB flash disk in the USB slot of the fingerprint machine, scroll "▲/▼" key to preview the picture in the USB flash disk then press the OK key to choose the picture you want to upload. If the prompt "upload successfully" is displayed on the equipment, the file will automatically jumps to the next picture. After completing uploading the pictures, press ESC(F8) key to exit.

7.4 Download Attendance Datum

Save all attendance datum from the equipment into the USB flash disk.

Instruction

1) Plug the USB flash disk into the USB slot of the fingerprint machine through the mini USB cable.

2) Scroll"▲/▼"to select the "Download Attlog".

3）Press "ok" to go on downloading data, the equipment prompt "is downloading , please waits... ..." until the equipment prompt "download attendance data successfully".

4) Press "OK" key to exit from this interface. Take out U flash disk. The files X_attlog.dat (attendance log), X_oplog.dat (management log), and X_user will be saved in the USB flash disk(X is a symbol of machine No.)

7.5 Users Upload Photos

Upload the JPG picture file which is named by ID.NO in the U Flash disk. After upload, while the staff finish verification, the staff's photo will show in the display
Insert the U flash disk into the USB slot of the fingerprint machine, Scroll "▲ / ▼" key to preview the qualified pictures in the U flash disk, find the favor pictures , press "OK" button to upload. When the equipment promt successful uploading, it will automatically turn to next picture. Complete uploading, press the "ESC" to exit.

7.6 Download User's Photos★

To save staff photo which is taken by the equipment into U flash disk.

Instructions

Insert U flash disk into the USB slot of the fingerprint machine, scroll "▲ / ▼" button to select user's pictures. If the user picture was downloaded successfully, it will be found in disk.

7.7 Upload Short Message

Upload the short message from the U flash disk into equipment.

Instructions

Insert the U flash disk into the USB slot of the fingerprint machine, Scroll "▲ / ▼" button to select user upload datum. Press "OK" button, the two files, udata.dat. and sms.dat, will be uploaded to the machine.

7.8 Download Short Message

Short Message in the equipment can be saved in the U flash disk .

Instructions

Insert the U flash disk into the USB slot of the fingerprint machine. Scroll "▲ / ▼" button to select users download data. Press "OK" button, the two file, udata.dat. and sms.dat in the machine will be downloaded to the disk.

7.9 Upload Flash

Before you upload the Flash file into the equipment, please contact our technical support. Our support will make it to meet your demand, to support you upload the documents through U flash disk .

7.10 attendance photo download ★

Download photos and blacklist photos, which is taken while employee punch-in/out and save in the equipment to U flash disk, the photo format is JPG format.

Instruction

Insert U flash disk into the USB slot of the fingerprints machines, scroll "▲ / ▼" key to select attendance photo to download.
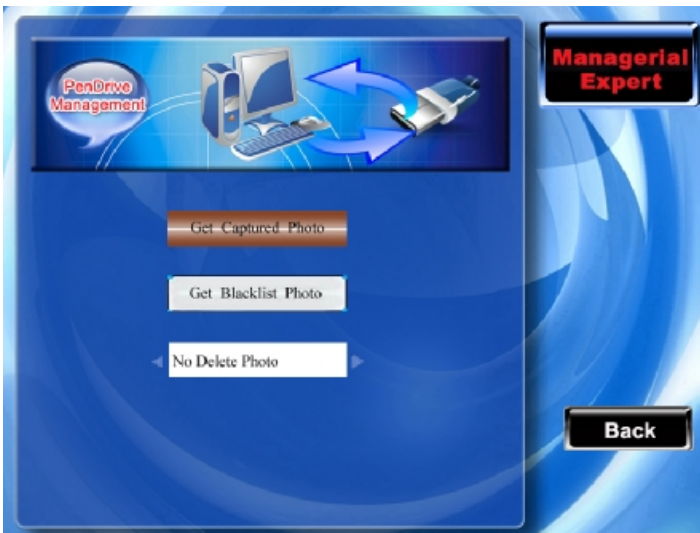
Attendance photos downloaded: will only download the attendance photos to the U flash disk.

Blacklist photos downloaded: only blacklist photos download to the U flash disk.

Whether Delete the downloaded photos: Set as "Do not delete the downloaded photos," After the download is complete, the equipment are still store photos.

Set as "delete the downloaded photos", downloaded the photos will be deleted, after the download is complete. scroll "▲ / ▼" button to select the type of   the photos to download, scroll ◄/►key to choose whether delete the downloaded photos. After downloaded, which the first directory is pic_ machines ID, the second subdirectory   pass is used to store attendance photo, the second subdirectory Bad is used to store blacklist   photos.

8 Information Release

The short message is similar to bulletin and notice. With the function, operator is able to schedule and edit the content of the short message that will be displayed on the screen. The short message is consisted of public short message and individual short message. If the public short message is configured, the icon will display on the information bar of the window in the assigned time. The default key is "#" key (customerized keyboard) which is available to the short message content. If the individual short message is setted, the system will show the short message to the staff after the staff verifying successfully.

Instruction
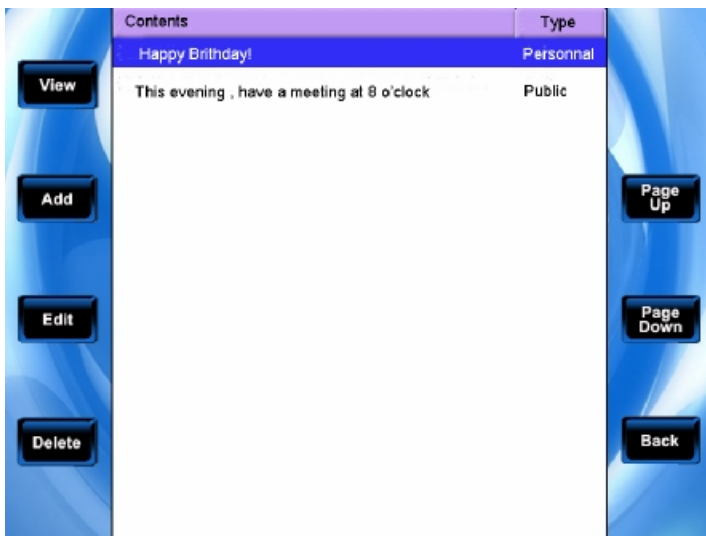
Scroll ▲ / ▼ keys to read his party Short Message.

Press F6/F7 keys by reading a chapter in the short message.

Press "OK" / F1 to view the selected Short Message Details.

Press F2 to view new short message.

Press F3 to edit short message.

Press F4 to delete Short Message

8.1 Establish Short Message

1) Add short message

Press F2 key to add short message in the pop-up menu..

Start time: the time the short message starts.

Show period: within the show period the short message will be displayed; after the period, the short message will stop.

Message type: Individual: only for individual

Public: All people are able to see.

Initialization: the initial short message, that means no individual and public short message.

Instruction

When the cursor locate in the text box, press "*"key to open the T9 input method, input the content of the short message, scroll the ▲/ ▼ key to switch the input box, scroll◄ /►to change setting or keyboard and input the value with the small numeric keyboard.

(1) If the type of individual short message is your choice, the distributing button is available; here the individual short message will be distributed to the staff

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Scroll ▲/▼key to search personnel line by line .

Press "OK" key to choose the personnel, then short message will be released to this staff.

Press ᴹ/↩/F7/F8 key to save your choice and exit.

Note: Before finishing the steps, please do not exit, or the setting will not work and turn to the initialization.

(2) while in public short message or initialization, the distributing button will not work. After completing the setting, press ᴹ/↩/F7/F8 key to save it and return to the short message list.

2) Edit short message

Press **F3** key to edit short message.

The operation to edit the short message is same with one to add the short message.

3) Delete Short Message

Press **F4** key to delete the short message.

Device will prompt "Are you sure to delete this short message? :
Press "OK" to confirm the delection, press "ESC" to give up the
operation

8.2 View Staff Short Message

1) Check the public short message

While the public short message is working, the main interface
show the picture and the content of the message, the interval
display time will turn around with advertising picture, if there are
many short messages, please scroll ▲/▼ keys to read

2）Examine individual short message

If the user who has the message verified successfully, the short message
content will be displayed.

The duration of the message display is 30 seconds, after the message, the user verification begins working.

9. Systems Information

From system information icon, you are able to know the information about the device, like Free volume and Engaged templates.

9.1 Equipment Information

In the equipment information, there are the equipment name, serial number and firmware version.

9.2 Logs Capacity

Through the log capacity you can check the number of users, managers, registered password in this machine; the machine provides the vivid graphic of fingerprint capacity, attendance logs capacity in order to show the free capacity and the used capacity of each item.
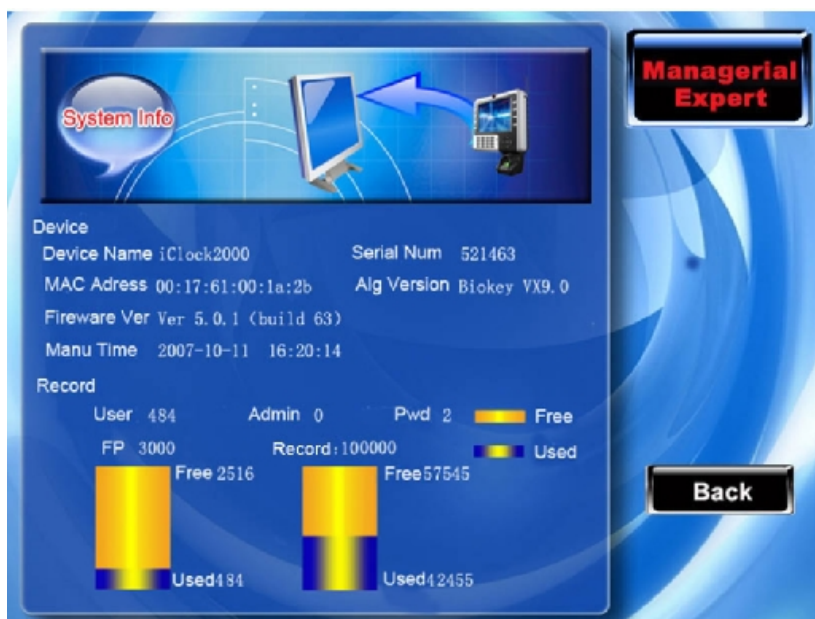
Appendix 1 Getting Familiar with Keyboard

The equipment keyboard has different usage in different interface, for details please see the next table．

Key	Detailed solution
numeric keyboard	1, 0 ~ 9, is used in to input the staff to number, numeral and password so on．
Function Key	1. Main menu , that is used as attendance state key. 2. The shortcut key, if there is operation item in the screen ,and relate the button position
▲	1、Upward． 2、Upward/forward switch option
▼	1、Downward． 2、Downward/Backward switch option．
▶	1、Revision current value.
◀	1、Revision current value
◉	1、Shut down key. Keep press the key for 3 seconds in the initial interface to shut down the unit.
⬅	1、Backspaces key．While inputting wrong ID.NO, password, system setting value, press the key to delete the value.
M/⏎	menu key，confirms ESC key
OK	Confirm and save
ESC	1、Cancel operation and return to the preceding of menus

	2、Press ESC key to close T9 input method
*	1.start the T9 input method
#	1.The backspaces key in T9 input method

Appendix 2 T9 Input Method

T9 input method is a intelligent input method; it is famous for highly effective inputting the character. The equipment fully supports T9 with Chinese, English and symbol input. There are three or four English letters on 0 ~ 9 numeric keyboards of the machine, for example the numeric keyboard 1 has the A, B, C three letters, only input key where this letter locate for the T9 Chinese, the program will automatically spell Pinyin. Then press the numeric key to choose Pinyin to input the Chinese character. T9 English also comply with the letter arrangement of English word to input, only press key, then the program automatically display this key expressing all letters, press the numeric key to select the letter. T9 input method can support inputting some marks. User is able to input the name and the short message content by using T9 input method key.

T9 input method key distribution and its function as blow:

ESC key

Backspace

Start the input method   Spacebar
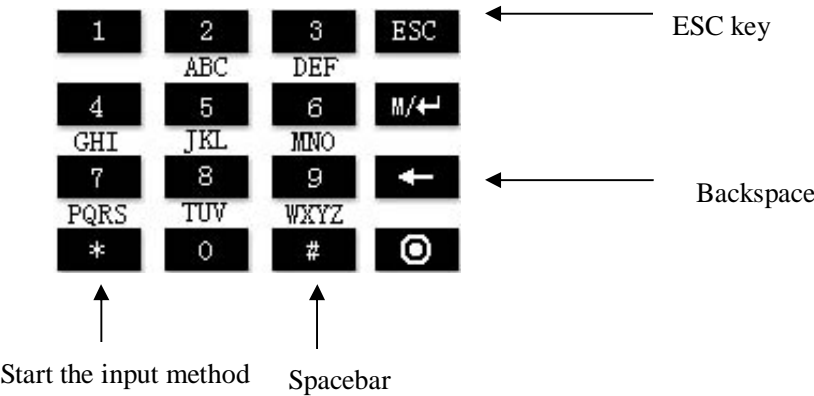
▲/▼/◀/▶: Turn page key

OK: Choose letter

Take an example for the T9 English input: Input "Ja "
press the * numeric key to enter the T9 input method.

Scroll ◄/► key or input the letter you select.

Press 1

If the operation must be carry on, please use the above method to do it again. After the input is completed, press the ESC key to exit

Appendix 3 Quickly Inquire Staff Attendance Logs

In order to help ordinary user to view his/her Time & Attendance record at same time, whether forgetting clock-in or occurring error, should well inform the supervisor that the attendance record is in abnormal.

Instruction

After the machine verify fingerprint or the password successfully in 10 seconds, then pressed "OK"/key to ability show this staff all records at same time.

For example: the staff, who's ID.NO is 1, match the fingerprint successfully, then the press "OK" key, you ability to view his /her Time & Attendance record at the same time.
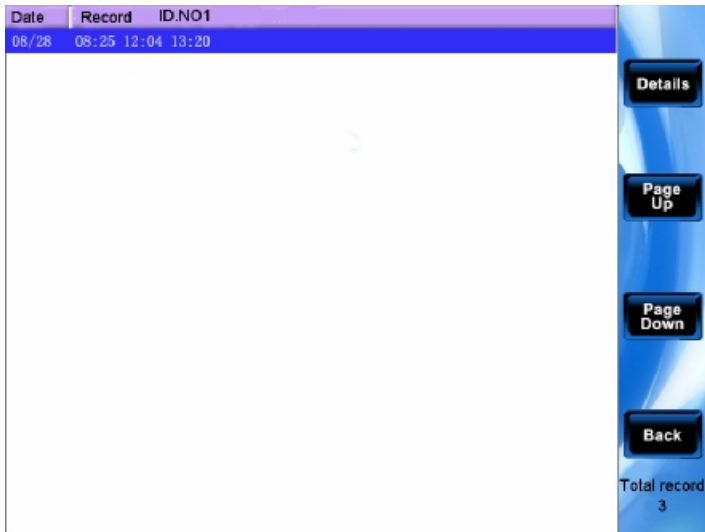
Scroll the ▲/▼ key to browse the Time & Attendance record line by line

Press **F6/F7** key page by page to browse the Time &attendance record;

Press "OK' or ᴹ/← key show detailed inquiry.

Press ESC/F8 key to return the initial interface.

Appendix 4 The Rule about the Advertising Pictures

Custom Photo specifications:

1. Photo format is JPG format to the other formats Do not support

 the format of photographs must be "ad_" as its head. For example ad_12.jpg is legitimate.

3.After photo is uploaded , the file name is not changed, following the replacement of the second pictures. You can upload pictures with the names of the coverage.

4. The size of each picture can not be more than 200 K, otherwise they can not be uploaded.

5. Picture resolution is 800 * 555 high-width, preferably not more than or less than the resolution

6.Only maximum photos: 16

Users upload photos:

Firstly upload pictures to equipment with U flash disk. After uploading and machine verifies fingerprints, photo will abilityshow at same time .

1. User photos must be JPG format, the file name, must be named. For example: the 154 users of the corresponding photos is 154. Jpg.

2. Because limit by this version, the names of user photos only no more than eight digital, such as: 12345678. Jpg is legal. On this issue, we are deeply sorry about the inconvenience caused to you and we will be fix this problem in next version.

3. Before uploading , the file folder that is called as "photo" in the U

flash disk must be established, all users need upload photos within this folder.

4. while uploading, insert U flash disk into USB slot of the fingerprint machines, scroll the "▲ / ▼" key to preview qualified photographs in U flash disk, select the photos you need to upload. If you need to upload all photos in the U flash disk, select "Upload user data."

5. When downloading, will be automatically built a folder called photo, users can download all the pictures within this folder.

6. If you need to download all photographs in the machines one time, select "Download user data."

Appendix 5 Take photo while staff punch-in/out★

When tack employees attendance, the camera mode is set to take photo / photo and save / failed to pass no save, To track staff attendance process as follows (take 1: N fingerprint verification as an example):

Step 1: Use the properly way to place finger on the windows of the sensor.

Step 2: If successfully validated, equipment start capture the current photo, photos will display on the screen. (If the photo that user have registered will be shown on upper left corner, are not registered are not shown)

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Step 3: When the equipment prompt, "Thank you", (If the   photo that user have registered will display photos), the certification completed.

Step 4: When verification is unsuccessful, the equipment and start camera and take photo to display on the screen.

Step 5: the equipment prompt "please try again", please return to step 1, try again.

Appendix 6 Battery specifications and Notice★

Maximum output voltage

DC15.0V

Output voltage

DC12.0V

Rechargeable power supply specifications

DC12V - 1.5A

Cycle life

The number of charge-discharge cycle ≥ 500

Charging time (H)

3.5 ± 0.5

Discharge time (H)

3.5 ± 0.5

Storage Environment

   Temperature: 15 ° C to 25 ° C

   Relative Humidity: 45% -75%

    Battery specifications

Notice

1, when batteries is in use, please Do not plug and pull power supplies too frequent (2-3 seconds), maybe cause failed to recharge;

2, Do not use the battery in a very hot environment, , such as direct sunlight. Otherwise, the battery will overheat, might fire (fire), it will affect the performance of the battery and short the life s of batteries used;

3, the battery has vent fluid, electrolysis also caused eye, skin or clothing, immediately wash with water flow, or seek immediate medical assistance;

4, please correct for battery installation and dismantling, otherwise it will affect the performance and battery life.

 Caution:

    There are dangers of battery exploding, leak, fever, fire, break if you don't read the notice carefully.

    ❙ Do not put the battery into water or let it to get wet.

    ❙ Do not use and store battery near heat-generating device (such as fire or heater).

    ❙ Please use original charger only.

    ❙ Do not inverse polarity connection.

    ❙ Do not throw batteries into fire or hot battery. Do not use wire or other metal short the positive and negative terminal, donot transit or storage it with necklace, barrette and other metal object.

    ❙ Do not break battery cause short-circuit battery

❙ Dropping a battery may cause a strong physical shock that may damage the performance of the battery

Appendix 7 About Anti-pass back function★

.
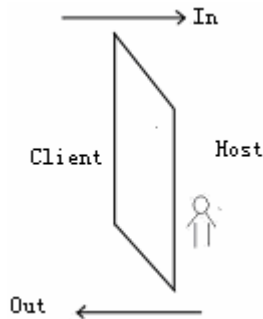
[Summary]

If you want to prevent   from somebody follow the others to enter the building, do not go out together, which cause the potential safety problems,   this feature Anti-pass back function is designed to save this problem ,unless the access records must be matched, the door is unable to be opened.

In order to realize this feature, reques two access control machines t . A machine installed in the building inside(the "Master"), a machine installed in the building outside (hereinafter referred to as "slave"). Between the two machines communicate through Wiegand signals.

[Principle]

the Master machine provide with Wiegand In   signal, the Slaver machine own   Wiegand Out signal. Connect Wiegand Out of the slaver machine to the Wiegand In of master machine, Wiegand signal sent out from the slaver machine must be non-machine ID, the number that send it to master machine must exist in the master machine, that is   the users of two anti-pass back   machines   must match.

[Instruction]

According to the most recent user access records, the fingerprint machine determines whether start anti-pass back function or not, access record must be matching. This machine supports, IN, Out, IN-Out anti-pass back.

When the Master machine is set to "Out- anti-pass back," If a user attempt to normally access, then his/her the last record must be "in" can not be out. As long as it is to find the record is "Out", system will be refused by "anti-pass back " For example: a user's most recent record is "in", it is allowed to the second record is "in" or "out" . the third record must based on the   second record, "In" and "out" must be matching, and so on. (Note, if there is no record of prior customers, and that he can In, not out)

When the Master machine is set to "In anti-pass back," If a user attempt to normally access, then the last record the user must be "Out" , otherwise it is not allowed to go out. As long as it is to find the records system will be refused by "anti-pass back." (Note, if there is no record of prior customers, he can go out and can come in)

When the host is set to "In-Out anti-pass back," If a user attempt to normally access , then is the most recent record the user is "Out" and

"in", the next record is to be "in" and "out", these "In" and "Out" record must be matching.

[Instruction]

1)   The choice of Machine models

Master machine: the machine with wiegand in . except for F10 .

Slave machine: the machine with Wiegand Out .

2) Setup the menu

Anti-pass back direction

The choice of Anti-pass back mode. There are three options: In anti pass back, Out-anti-pass back, None-anti-pass back.

In anti-pass back: Only the user's last recorded is "In", can open the door.

Out-anti-pass back: Only the user's records in last time is "out".

Machine state

There are three options: control In, control out, None.

Control In: Set the value, the machine records to verify the entry records. Control out: Set the value, the machine records to verify the records out. None: Set the value, that is, the closure of the anti-pass back function.
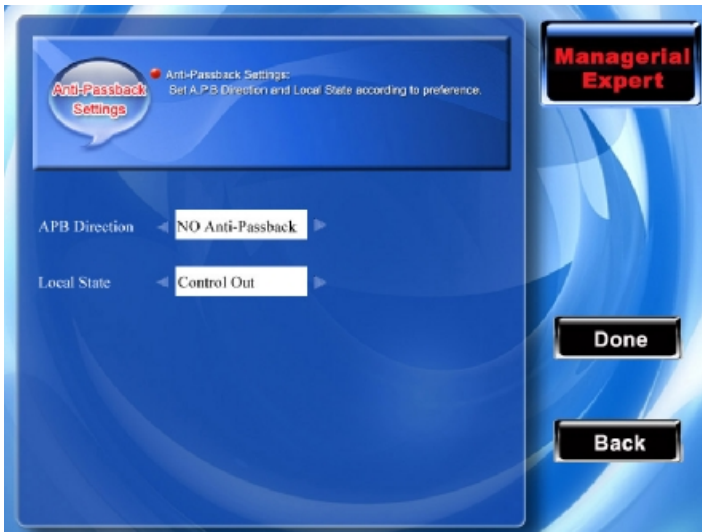
Scroll ▲ / ▼ key switch input box option, press ◀/▶ to change settings,　after the completion of setting, press the menu button to save your settings, press "ESC" to exit the setting.

3) modify machines weigand output format

Two machine communication, only the Wiegand signal　without machine No. is accepted by the machine. may enter the menu of machines　-> Communications Settings -> Wiegand settings or enter the software -> basic settings -> equipment management -> weigand, "defined format" to "wiegand26 without device ID".

4) User registration

This user must also exist in the　master and slaver machine , but users ID must be consistent. Therefore, need to register users in master and slaver machine at the same time.

5) Wire instruction

　Weigand from the main machine for communication, wiring as follows:

From the host machine

  IND0 <-----> WD0

  IND1 <-----> WD1

  GND <-----> GND

Appendix 8 Multi-combination Authentication Mode★

Besides this function only is owned by the fingerprint access control machine that has been appointed, the most fingerprint machine only has two way to verified by fingerprint and password, we provide a personal or group Multi-combination Authentication Mode for high security Access control area, verification type main include four elements that are Employee Number PIN, Fingerprint (FP), Password (PW) and RF card (RF), which can combine into filth multi-combination.

Note:

The fingerprint machine with Mifare function needs to verify Mifare card.

The Mifare card is regard as RF card in the verification procedure, the function of Mifare card verification only is validity in the machine which Mifare card function is provided with.

These symbols illustrate what follow the table different means.

- "/" is or,
- "+" follow next operation
- FP (fingerprint)
- RF (RF card)
- "←" is confirm (Enter),
- "&" is and,
- PWD (Password)
- PIN (user ID)

If fingerprint or Password has been used to enroll user, the

verification procedure is follow

Type	What you do
FP	Only fingerprint is verified.
	1） PIN+FP（1: 1Verification）
	2） FP (1: N Identification)
	3）RF+FP(1:1)
PIN	Only PIN is verified
	1）PIN(just have to input the digital through keyboard)
PW	Only verify password is verified
	1） PIN+"←"+PW
	2） RF+PW
RF	Only RF card is verified
	1）RF
FP/PW	Fingerprint or Password is verified
	1） PIN+FP(1:1)
	2）FP(1:N)
	3）PIN+"←"+PW
	4）RF+PW
FP/RF	Fingerprint or RF is verified
	1）PIN+FP(1:1)
	2）FP(1:N)
	3）RF
PW/RF	Fingerprint or RF is verified
	1） RF
	2） PIN+"←"+PW

FP/PW/RF	Fingerprint or RF or Password is verified
	1）PIN+FP(1:1)
	2）FP(1:N)
	3）PIN+PW
	4）RF
FP&PIN	Fingerprint and PIN are verified
	1）PIN+"←"+FP(1:1)
	2）RF+ PIN+"←"+FP(1:1)
FP&PW	Fingerprint and PIN are verified
	1）FP(1:N)+PW
	2）PIN+FP(1:1)+PW
	3）RF+PW + FP(1:1)
FP&RF	Fingerprint and RF are verified
	1）RF+FP(1:1)
	2）FP(1:N)+RF
	3）PIN+FP(1:1)+RF
PW&RF	Password and RF are verified
	1）RF+PW
	2）PIN+"←"+PW+RF
FP&PW&RF	Fingerprint, Password and RF are verified
	1）FP(1:N)+PW+RF
	2）PIN+FP(1:1)+PW+RF
	3）RF+ PW+ FP(1:1)
FP&PIN&PW	Fingerprint, PIN and Password are verified

	1） PIN+"←"+PW+FP(1:1)
	2） RF+ PIN+"←"+PW+FP(1:1)
FP & PIN /RF	Fingerprint and PIN, or fingerprint and RF are verified
	1） FP+ PIN
	2） FP +RF
	3） PIN+FP(1:1) + PIN
	4） PIN+FP(1:1) +RF

When enroll user, register card, but only register a fingerprint or only register your password, the verification process as following table:

Type	Description	
	Password registered	fingerprint registration
FP	only fingerprint verification	
	1 ） PIN+FP(1:1 verification) 2）FP (1: N verification) 3）RF+FP(1:1)	Unable to pass
PIN	number verification only	
	1）PIN+"←"	1）PIN+"←"
PW	only Password verification	
	Wrong password	1） PIN+"←"+PW 2）RF+PW
RF	only RF Card verification	
	1）RF	1）RF
FP/PW	password or fingerprint verification	
	1） PIN+FP(1:1) 2） FP(1:N) 3） PIN+"←"+ FP(1:1) 4） RF+FP(1:1)	1） PIN+"←"+PW 2） RF+PW
FP/RF	fingerprint or RF verification	
	1） PIN+FP(1:1) 2） FP(1:N)	1）RF

	3）RF	
PW/RF	password or RF verification	
	1）RF 2）PIN+"←"+PW	1）PIN+"←"+PW 2）RF
FP/PW/RF	fingerprint or password or RF verification	
	1）PIN+FP(1:1) 2）FP(1:N) 3）PIN+"←"+ FP(1:1) 4）RF+FP	1）PIN+"←"+PW 2）RF
FP&PIN	number and fingerprint verification	
	1）PIN+"←"+FP(1:1) 2）RF +"←"+FP(1:1)	Unable to pass
FP&PW	fingerprint and password verification	
	Unable to pass	Unable to pass
FP&RF	fingerprint and R verification	
	1）RF+FP(1:1) 2）FP(1:N)+RF 3）PIN+FP(1:1)+RF	Unable to pass
PW&RF	password and RF verification	
	Unable to pass	1）RF+PW 2）PIN+"←"+PW+RF

FP&PW&RF	fingerprint, password and RF verification	
	Unable to pass	Unable to pass
FP&PIN&PW	fingerprint, number and password	
	Unable to pass	Unable to pass
FP&RF/PIN	Fingerprint and RF verification or fingerprinting and numbers verification	
	1）RF+FP(1:1) 2）FP(1:N)+RF 3）PIN+"←"+FP(1:1)	Unable to pass

Note: 1) When a user register card number (or similar to ID card) and also enrolled a fingerprint in the equipment, above table the RF can be verified by only punch card, then do not need to place fingerprints.

2) Combination of authentication methods, the use of fingerprints, password and Mifare cards are registered is recommended, otherwise may be unable to validation.

Example: A user only register the fingerprints, and methods of verification for the PW, then the user can not be verified .

Appendix 9 Remote server Solution★

Because of the limit of standalone machine capacity and speed, there is impossibility to add a large mount of fingerprints (for example, up to ten thousands of fingerprints). Even if the capacity can be expanded, the standalone machine speed can't be assured; the speed is much slower than PC's. Based on above reasons, Standalone is an incapable for those large systems which have large fingerprint capacity and high matching efficiency, so a fingerprint solution, i.e. remote server solution, is put forward, which can deal with large capacity and high efficiency.

Concept

Taking standalone machine as fingerprint scanner, its standalone identification function is reserves. With identification and verification, and then stores matching results in the background DB and displays identification results on the fingerprint machine LCD, to complete the task of identification process. Which Identification algorithm adopts intellectual property algorithm Biokey，the common PCs can act as remote server, the remote sever solution has lower requirement of entire identification system and improve algorithm efficiency, thus assure of feasibility and convenience of solution.

Solution Purpose: large capacity of fingerprint identification, enhanced enterprise internal management, intelligent management, In/Out control for personnel.

Architecture of Remote server

The basic mode adopts C/S mode, please see the following figure
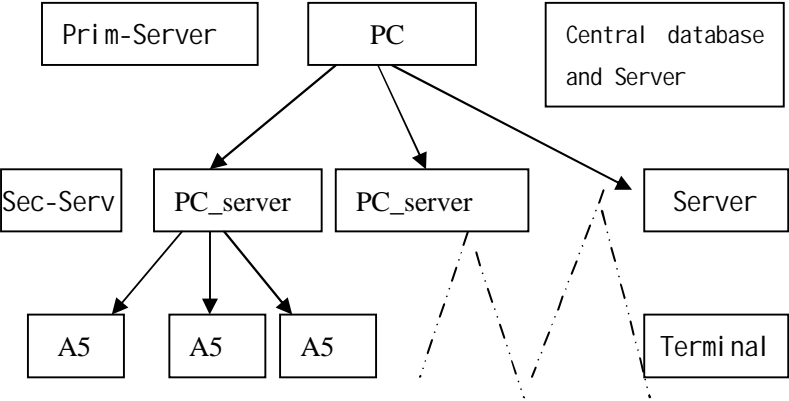
Appendix 10 WIFI★

Wi-Fi (short for "wireless fidelity") is a term for certain types of wireless local area network (WLAN) that use specifications in the 802.11 family. The term Wi-Fi was created by an organization called the Wi-Fi Alliance, which oversees tests that certify product interoperability. A product that passes the alliance tests is given the label "Wi-Fi certified" (a registered trademark).

Originally, Wi-Fi certification was applicable only to products using the 802.11b standard. Today, Wi-Fi can apply to products that use any 802.11 standard. The 802.11 specifications are part of an evolving set of wireless network standards known as the 802.11 family. The particular specification under which a Wi-Fi network operates is called the "flavor" of the network. Wi-Fi has gained acceptance in many businesses, agencies, schools, and homes as an alternative to a wired LAN. Many airports, hotels, and fast-food facilities offer public access to Wi-Fi networks. These locations are known as hot spots. Many charge a daily or hourly rate for access, but some are free. An interconnected area of hot spots and network access points is known as a hot zone.

Unless adequately protected, a Wi-Fi network can be susceptible to access by unauthorized users who use the access as a free Internet connection. The activity of locating and exploiting security-exposed wireless LANs is called war driving. An identifying iconography, called war chalking, has evolved. Any

entity that has a wireless LAN should use security safeguards such as the Wired Equivalent Privacy (WEP) encryption standard, the more recent Wi-Fi Protected Access (WPA), Internet Protocol Security (IPsec), or a virtual private network (VPN).

Its main features are: high speed, high reliability, in the opening of region, communications distance of up to 305 meters, in a closed region, communication distance is 76 m to 122 m, convenient , Network costs are lower than the existing wired Ethernet.

We fingerprint machine has also realized the WIFI function. WIFI modules can be built-in fingerprint machine , can be an external module WIFI to achieve through WIFI wireless data transmission.

For detail , please see 4.3 Wireless Settings

Appendix 11 GPRS★

General Packet Radio Services (GPRS) is a packet-based wireless communication service that promises data rates from 56 up to 114 Kbps and continuous connection to the Internet for mobile phone and computer users. The higher data rates allow users to take part in video conferences and interact with multimedia Web sites and similar applications using mobile handheld devices as well as notebook computers. GPRS is based on Global System for Mobile (GSM) communication and complements existing services such circuit-switched cellular phone connections and the Short Message Service (SMS).

We fingerprint machine has also realized the GPRS function. GPRS modules can be built-in fingerprint machine , also can be an external GPRS module to achieve the GPRS systems for data transfer.

How to operate GPRS fingerprint machine, please see 4.5 dail-up settings.

Appendix 12 Print function★

[**Explain**]

this function is designed for a serial port printer only, the parallel printer is unavailable. the content that attempt to print output via RS232 , after each user is verified the result will be sended out through serial port. If fingerprint machine connect with the printer the result can be printed directly, can also use the Super Terminal to wiew the output content.

Fingerprint machine connect with printer	Fingerprint machine printer 2 TXD <--------> 3 RXD 3 RXD <--------> 2 TXD 5 GND <--------> 7 FG

[**Instructions**]
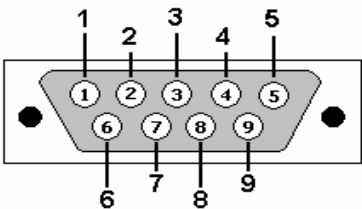
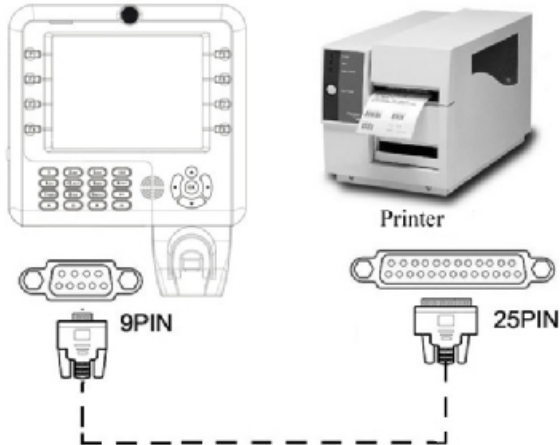Fingerprint machine   printer
2 TXD   <----->   3 RXD
3 RXD   <----->   2 TXD
5 GND   <----->   7 FG

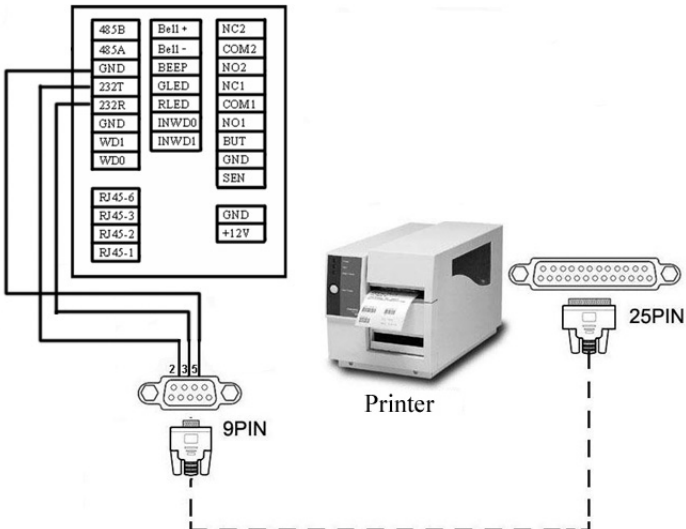**Note: the baud rate of fingerprint machine and printer is same with.**

[**Connection Schematic** diagram]

1）There is a 9PIN serial Port on the fingerprint machine

2）The fingerprint machine with connection terminal

Appendix 13 Web Server ★

At the first time use the WebServer, should be configure the setting, enter menu -> communications settings fingerprints IP address, such as set up the IP address of the fingerprint machine to 192.168.1.225; type the   http://192.168.1.225 in IE address bar
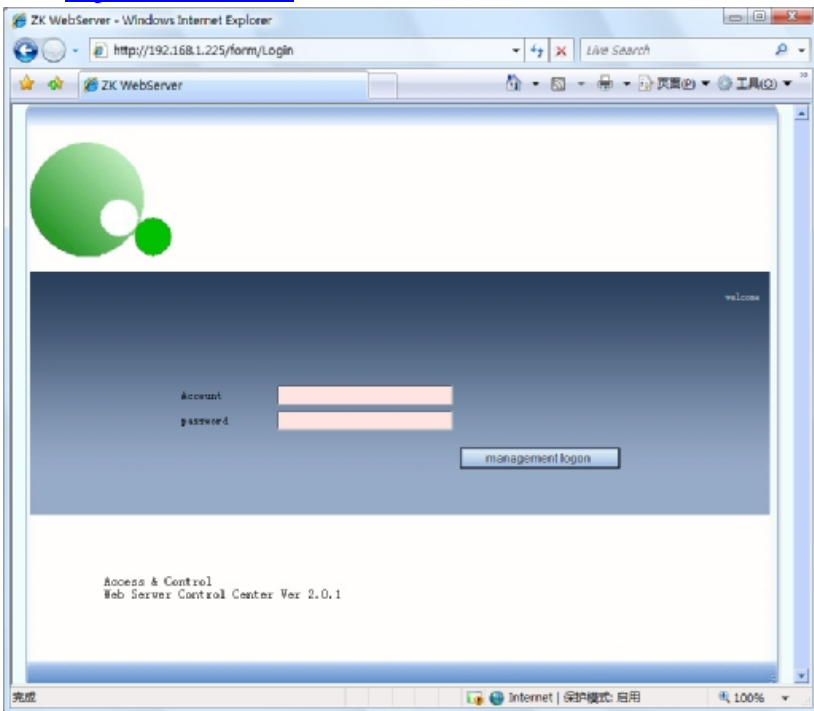
The default the system user name of super administrator: administrator; Password: 123456.

1) Enter view records

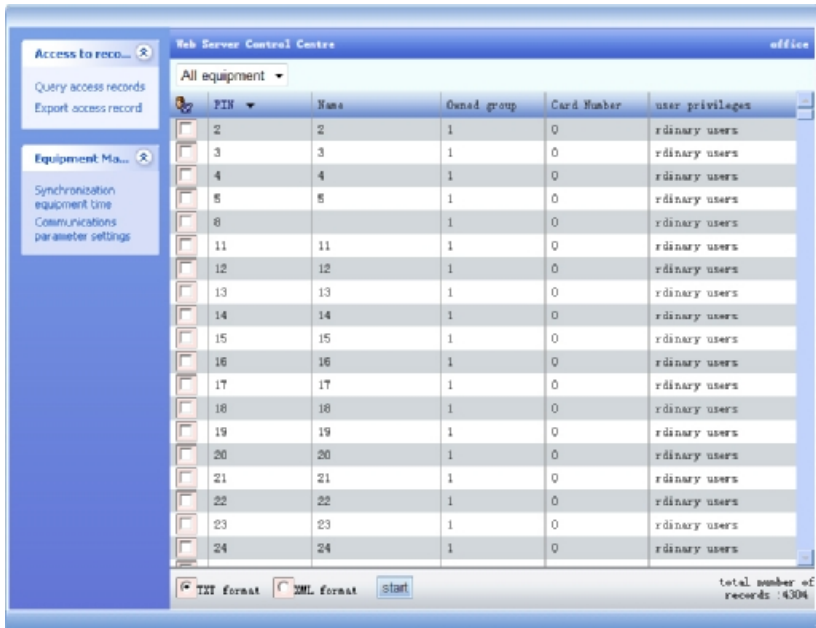① Left-click option "View In-Out records" interface;
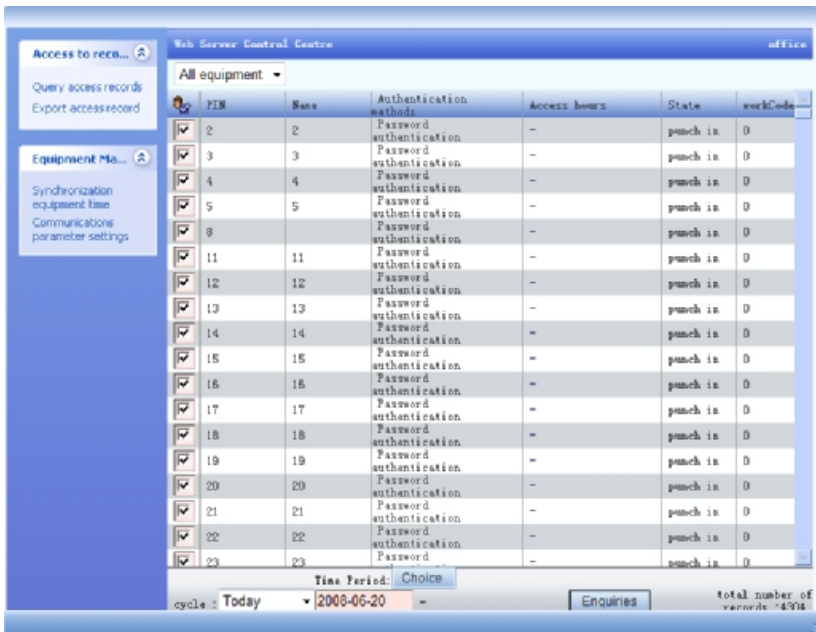
② to select staff you want to view in the list;

③ designate the time scope for view.

2) Export In −Out records: Save these logs to local disk.

① left click   "Export logs" option;

② choose staff you want save his records in the list; ③ select file format to save.

④ click "start the download" and save the file to the local disk.

3) synchronization equipment time

① left click "synch equipment time" option on the interface;

② select the adjustment method

Auto: Time of computer and equipment will be automatically synchronized.

Manual adjustments: manually set the time of the equipment and defined time synchronization.

③ local equipment date

Choose automatic adjustment, this machine's date and time is the computer date.

Choice of manual adjustments can manually enter the time.

④ click the "modified" button to change the time of equipment

4) communication parameter

① left click "communication parameters" option on interface

② enter the communications parameters

• Ethernet:

(1) Through the hub: with cable (for connecting Net cards and hubs) connect machines to the network.

(2) Directly connection: Use the cross-cable (direct connect the two Ethernet endpoint) to connect machines and PC .

IP Address: The default IP is 192.168.1.201, you can make changes based on the actual situation;

Subnet Mask: The default subnet mask 255.255.255.0, you can make changes based on the actual situation;

Gateway Address: default gateway address 0.0.0.0, you can make changes based on the actual situation;

• RS232: the use of RS232 serial port.

Baud rate: the communications and computer communications rate, high-speed communications faster, the proposed use of RS232 communications 115200,57600 the baud rate.

RS232/RS485: whether or not to use RS232 communications, select On the RS232 apply .

• RS485 way

Baud rate: the communications and computer communications rate, low-speed communication stability, the proposed RS485 communications the baud rate 9600,38400.

RS232/RS485: whether or not to use RS485 communications, select On the way to use RS485.

③ click "Save settings" button to write into the parameters of communications equipment.

RoHS Compliance

•The standard of environmental protection of these products in this statement refers to safety deadline under the conditions of provisions using the product no leakage of toxic or hazardous substances harmful to.

• The standard of environmental protection products by the deadline does not include the batteries or be easy to wear and tear of the regular replacement parts. The deadline for the use of environmentally friendly batteries is five years.

Table of hazardous substances' name and concentration						
Component Name	Hazardous substances' name					
	（Pb）	（Hg）	（Cd）	（Cr6+）	（PBB）	(PBDE)
resistors	×	○	○	○	○	○
SMD capacitor	×	○	○	○	○	○
SMD inductors	×	○	○	○	○	○
SMD diode	×	○	○	○	○	○
PCB	×	○	○	○	○	○
Buzzer	×	○	○	○	○	○
Adopter	×	○	○	○	○	○
Screws	○	○	○	×	○	○

○: Indicates that this toxic or hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement in SJ/T11363-2006.

X: Indicates that this toxic or hazardous substance contained in at least

one of the homogeneous materials used for this part is above the limit requirement in SJ/T11363-2006.

Note: 80% component of this product are made from non-toxic or hazardous substance, Applications of hazardous substances in this device are required to achieve its intended uses, due to lack of reasonably (economically or technically) available substitutes. Indicates that the concentration of the hazardous